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MAPS

TOO

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FOR

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COMPLAINANT'S EXHIBIT 2. DARLING.

ESTIMATED COST OF REPRODUCING NORTHERN PACIFIC RAILWAY SYSTEM, EXCLUDING SPOKANE, PORTLAND AND SEATTLE, PORTLAND TERMINALS AND LAKE SUPERIOR TERMINALS AND TRANSFER RAILWAY PROPERTIES.

		Estimated Cost as of June 30th, 1906.	Estimated Cost as of April 30th, 1908.
1.	Engineering	$10,539,627	$11,143,922
2.	Right of way and station grounds	105,080,570	108,096,399
3.	Real estate		
4.	Grading	77,468,890	88,755,696
5.	Tunnels	3,921,421	4,638,637
6.	Bridges, trestles and culverts	17,325,828	20,676,683
7.	Ties	15,978,036	
8.	Rails	28,126,281	
9.	Frogs and switches	1,838,750	74,435,094
10.	Track fastenings and other material	4,569,675	
11.	Ballast	10,449,905	
12.	Tracklaying and surfacing	6,895,654	
14.	Fencing right of way	764,485	1,108,011
15.	Crossings and signs	129,584	
16.	Interlocking and other signal apparatus	167,862	207,897
17.	Telegraph and telephone lines	1,443,000	1,656,068
18.	Station buildings and fixtures	2,871,264	3,289,484
19.	General office buildings and fixtures	836,600	836,600
20.	Shops, engine houses and turntables	3,972,125	5,852,940
21.	Shop machinery and tools	1,100,000	
22.	Water stations	1,971,200	3,304,747
23.	Fuel stations	635,900	
24.	Grain elevators	None	None
25.	Storage warehouses	4,611,016	4,670,598
26.	Dock and wharf property		
27.	Electric light plant	Included Above	Included Above
28.	Electric power plants		
29.	Electric power transmission		
30.	Gas producing plants	None	None
31.	Miscellaneous structures	2,376,656	2,850,892
32.	Transportation of men and material		808,668
33.	Rent of equipment	Included Above	41,412
34.	Repairs of equipment		
35.	Earnings and operating expenses during construction		2,159
36.	Cost of road purchased	.....	.....
37.	Steam locomotives	16,480,200	21,642,538
38.	Electric locomotives	Included Above	Included Above
39.	Passenger train cars	5,898,000	7,039,204
40.	Freight train cars	30,486,000	38,108,993
41.	Work equipment	497,000	841,473
42.	Floating equipment	617,400	612,400
43.	General expenditures	Included Above	2,192
	Grade revision 1897-1901	2,350,600	2,350,600
	Joint work in Seattle	2,457,000	2,563,603
		$361,860,529	$405,536,910
	Contingencies, 10%	36,186,053	36,186,053
	One year's interest on difference between first and second column omitting items 37, 39, 40, 41 and 42, $29,410,373 @ 4%		1,176,415
		$398,046,582	
	Interest, 10% (2½ years @ 4%)	39,804,658	39,804,658
		$437,851,240	$482,704,036
	Lines in Manitoba	7,000,000	7,000,000
	Duluth Union Depot, exclusive of right of way	597,545	597,545
	St. Paul Union Depot, 1/9 interest	610,572	610,572
	Minnesota Transfer Railway, 1/10 interest	575,600	575,600
	Supplies on hand	3,465,331	6,377,282
		$450,100,288	$497,865,035

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

MILEAGE OF NORTHERN PACIFIC RAILWAY SYSTEM.

	June 30th, 1906.		As of April 30th, 1908.	
	Approximately.			
Main Track:				
Main line	2,749.57	Miles	2,750.78	Miles
Double track	110.85	"	217.72	"
Third track	.....		1.58	"
Duluth Union Depot	.25	"	.25	"
		"		"
	2,860.67	"	2,970.33	"
Branches:	2,679.75	"	2,884.41	"
Double track	1.53	"	1.53	"
Spurs	309.12	"	364.26	"
Yards and sidings	1,455.38	"	1,727.76	"
Wash. & Col. River	168.86	"	Included	
spurs and sidings	21.65	"	Above	
Pt. Townsend Southern	43.63	"	43.63	"
spurs and sidings	3.46	"	3.88	"
M. & I. 70%	150.74	"	150.65	"
		"		"
	4,834.12	"	5,176.12	"

DETAILS OF GRADING.

Main Track:				
Main line	2,749.57	Miles		
Double track	110.85	"		
Duluth Union Depot	.25	"		
	2,860.67	"	@ $9,959.14	$28,489,813.00
Branches:	2,679.75	"		
Double track	1.33	"		
Spurs	309.12	"		
Yards and sidings	1,455.38	"		
Wash. & Col. River	168.86	"		
spurs and sidings	21.65	"		
Pt. Townsend Southern	43.63	"		
spurs and sidings	3.46	"		
M. & I. 70%	150.74	"		
	4,834.12	"	@ $7,763.51	$37,529,740.00
Clearing	22,036	Acres	@ 80.00	1,762,880.00
Grubbing	30,851	Stat.	@ 16.50	590,041.50
Earth	116,412,694	Yards	@ 0.28	32,595,554.00
Hard pan	38,703,637	"	@ 0.42	16,255,528.00
Loose rock	12,721,303	"	@ 0.50	6,360,651.50
Solid Rock	9,051,266	"	@ 1.10	9,956,392.60
Riprap	2,714,621	"	@ 2.00	5,429,242.00
				$138,969,843.00

Average per mile main track 28,000 cubic yards material.
Average cost of material per cubic yard, 36.8 cents.

Earth	65.8%
Hard pan, etc	21.9%
Loose rock	7.2%
Solid rock	5.1%

POOR C

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

COST OF ONE MILE OF MAIN TRACK.

Average haul for steel and trimmings, 1,000 miles @ .04c per ton per mile.
Average haul for ties, 400 miles @ .04c per ton per mile.
Average weight of angle bars, 7.3 tons per mile.
Average weight of bolts, .75 tons per mile.
Average weight of spikes, 3.4 tons per mile.

Steel, f. o. b. St. Paul, including two handlings in transit, 117 tons	@	$31.00	$3,627.00
Angle bars, 7.3 tons	@	34.00	249.66
Bolts, .75 tons	@	55.00	41.25
Spikes, 3.4 tons	@	42.20	143.48
Tie plates, 7.5 tons	@	44.00	330.00
Cost of material, yard and work therein, 135.95 tons	@	1.00	135.95
Contract cost of laying track	@	375.50	375.50
Cost of one extra switch per mile	@	27.50	27.50
Rent of equipment, train service and hauling to the front	@	375.00	375.00
Ties, 3,000	@	.55	1,650.00
Ballast, 3,000 cu. yds	@	.66	1,980.00
Transportation of ties, rail, etc.			1,023.80
			$9,959.14

Ballast, contract price	$0.27
Cost of shovels, etc	0.03
Transportation, 60 miles @ $.004	0.36
Total	$.66

Bolts, 1,500 per mile @ 1 lb. equals	.75	tons per mile.
Spikes, 34 kegs @ 200 lbs. equals	3.4	do
Angle bars, average weight, 14,600 lbs. equals	7.3	do

Clearing	22,036	acres	@	80.00	$1,762,880.00
Grubbing	30,851	stations	@	16.50	590,041.50
Earth	116,412,694	yards	@	.28	32,595,554.00
Hard pan	38,703,637	"	@	.42	16,255,528.00
Loose rock	12,721,303	"	@	.50	6,360,651.50
Solid rock	9,051,266	"	@	1.10	9,956,392.60
Riprap	2,714,621	"	@	2.00	5,429,242.00
Wooden bridges	Filled				4,518,600.00
					$77,468,869.60

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

COST OF ONE MILE OF BRANCH LINES, SIDINGS AND SPURS.

Average weight of steel in branch lines, spurs and sidings	97 tons	@ $31.00	per	ton	$3,007.00
Angle bars	6.46 tons	@ 34.20	"	"	220.93
Bolts and nuts	.75 tons	@ 55.00	"	"	41.25
Spikes	3.4 tons	@ 42.00	"	"	143.48
Material yard work	107.61 tons	@ 1.00	"	"	107.61
Cost of laying track		375.50			375.50
Cost of one extra switch		27.50			27.50
Ties, 2,880		@ .55	ea.		1,584.00
Rental of equipment, hauling to the front, train service, etc					375.00
Ballast, average 1,500 cu. yds		@ .66	per	cu. yd.	990.00
Transportation of steel, ties and trimmings					891.24
					$7,763.51

COST PER CUBIC YARD FOR GRADING.

Earth.		
Contract price	$0.22	
Overhaul	.03	
Transportation	.03	
		$0.28
Hard Pan and Cement Gravel.		
Contract price	$0.35	
Overhaul	.04	
Transportation	.03	
		$0.42
Loose Rock.		
Contract price	$0.42	
Overhaul	.04	
Transportation	.04	
		$0.50
Solid Rock.		
Contract price	$1.00	
Overhaul	.05	
Transportation	.05	
		$1.10
Clearing.		
Contract price, per acre	$75.00	
Transportation	5.00	
		$80.00
Grubbing.		
Contract price, per station	$15.00	
Transportation	1.50	
		$16.50
Riprap.		
Contract price, per yard	$1.75	
Extra haul and work	.15	
Transportation	.10	
		$2.00

POOR

COST OF TUNNELS.

Single track tunnels lined with concrete.

Lineal feet.

100-700′	700-1,200′	4,000′	10,000′
3,390′	1,069′	7,548′	9,833′

Double track tunnel lined with concrete.....1,656 lineal feet
Single track tunnel lined with wood.....4,919 lineal feet

Cost of Tunnels.

Concrete, 24 inches thick, equals 4.1 cu. yds. per ft. of tunnel.

Concrete,.....	$9.00	Contract price,
1¼ bbls. cement.....	2.50	
Freight.....	1.00	
	$12.50	

Concrete, $12.50 × 4.1 equals $51.20 per lineal foot of tunnel.

TUNNELS.

100′ to 800′—wood—is $50.00 plus 10% (See note).		
Equals.....	$55.00	
Wood.....	24.75	
		$80.00
100′ to 800′—concrete—		
$50.00 plus 10%.....	$55.00	
Concrete.....	51.25	
False work.....	13.00	
		$119.25
800′ to 1,200′—		
$55.00 plus 10%.....	$60.50	
Concrete.....	51.25	
Falsework.....	13.00	
		$124.75
4,000′—		
$75.00 plus 10%.....	$82.50	
Concrete.....	51.25	
Falsework.....	13.00	
		$146.75
4,000′ to 10,000′—		
$90.00 plus 10%.....	$99.00	
Concrete.....	51.25	
Falsework.....	13.00	
		$163.25
Double track, short tunnels.		
Concrete, 5.2 cu. yds. @ $12.50.....	$65.00	
Extra excavation, 11.5 cu. yds. @ $3.00.....	34.50	
Contract price, $50.00 plus 10%.....	55.00	
False work.....	13.00	
		$167.50

NOTE: 10% is added to contract price for extra excavation.

OPY

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

AVERAGE COST OF TURNOUTS.

Ties	$54.00	
Switch stands	13.30	
Connecting rod	1.65	
Frog	33.00	
Split switch	31.00	
Rail braces	1.60	
Switch lamp	6.00	
Guard rails	8.80	
Freight charges	14.40	
		$162.75

BRIDGING, N. P. SYSTEM.

Howe truss spans, exclusive of traffic charges	$608,380.00	
Traffic charges, 21,550 tons @ $4.00	86,200.00	
		$694,580.00
Steel and combination bridges, exclusive of freight charges	8,894,848.00	
Freight charges	1,055,400.00	9,950,246.00
Steel, combination and Howe truss bridges		$10,644,825.00
Cost of bridge filling		3,012,415.00
Pile and trestle bridges:		
359,000 lineal feet @ $10.00		3,590,000.00
Total cost of bridging		$17,247,243.00

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

	Total cost including freight charges
Fencing, 4,575 miles @ $150.00	$707,290.00
Water supply (including tanks, standpipes, wells, pipe lines, etc.)	1,971,200.00
Wharfs and docks (1,750,000 sq. ft. @ 70c)	1,725,000.00
Coaling stations	636,936.00
Stockyards (3,412,000 sq. ft. @ 4c)	152,857.00
Track scales, 74 ($1,300)	107,671.00
Cattle guards (3,464 @ $15.00)	57,195.00
Roundhouses, turntables, power houses, etc.—	
Frame, $1,300 per stall	1,690,448.00
Brick, $2,100 per stall	
Turntables, $5,000 a-piece	
Shop buildings—	
Brick, one-story, $1.50 per sq. ft.	2,091,650.00
Brick, two-story, $2.50 " "	
Frame, $1.00 per sq. ft.	
Warehouses—	
Frame, $1.20 per sq. ft.	2,888,016.00
Brick, $1.60 per sq. ft.	
Headquarters buildings	736,600.00
Passenger stations—	
Ordinary brick, $2.50 per sq. ft.	1,102,304.00
Frame, $1.50 per sq. ft.	
Special, actual cost	
Combination stations—	
One-story, $1.50 per sq. ft.	1,408,960.00
Two-story, $2.50 per sq. ft.	
Interlocking	123,555.00
Mile posts and signs (5,785 miles @ $20.00)	129,584.00
Ash pits	79,067.00
Oil and sand houses ($1.50 per sq. ft)	120,960.00
Block system	44,307.00
Miscellaneous buildings and piping	1,578,538.00
Snow fence (320 miles @ $1,500)	537,600.00

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

TERMINALS, REAL ESTATE AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED, FROM JULY 1, 1906 TO NOVEMBER 30, 1906.

		State of Minnesota	Whole System
1.	Salaries and wages	$18,799.37	$85,682.07
2.	Other engineering expenses	6,713.99	50,547.27
3.	Right of way and station grounds	49,434.32	340,304.07
4.	Real estate	9,093.43	47,564.15
5.	Clearing and grubbing	.....	6,218.83
6.	Grading	958,483.79	1,829,722.70
7.	Tunnels	.....	55,642.94
8.	Bridges, trestles and culverts	36,275.39	90,606.59
9.	Ties	78,179.13	92,529.51
10.	Rails	326,638.92	402,734.78
11.	Track fastenings	69,370.88	81,686.31
12.	Frogs and switches	17,153.26	19,569.97
13.	Track laying and surfacing	83,144.75	115,067.26
14.	Ballast	23,078.34	43,790.36
15.	Station buildings and fixtures	1,688.18	2,454.13
16.	Engine houses and turntables	64,611.67	64,611.67
17.	Engine and car shops	11,359.76	11,359.76
18.	Shop machinery and tools	.50	.50
19.	Water stations	27,626.29	31,025.91
20.	Fuel stations	5,799.03	5,799.03
21.	Fencing right of way	20.48	1,514.21
22.	Snow fences and snow structures	.....	537.85
23.	Stock yards	46.77	197.09
24.	Crossings, cattle guards and signs	977.08	1,488.59
25.	Interlocking or signal apparatus	16.81	16.81
26.	Docks, wharves and coal bunkers	.....	.....
27.	Transfer boats and barges	.....	.....
28.	Section and tool houses	.....	225.19
29.	Miscellaneous structures	18,133.79	18,249.47
30.	Telegraph lines	534.97	3,028.33
31.	Transportation charges	90,023.35	292,034.21
32.	Operating expenses and earnings	.....	.....
33.	Construction equipment	865.21	1,262.50
34.	General expenses	.....	30.70
35.	Interest and discount	.....	.....
	Terminals	.....	78,676.56
	Store account	.....	4,656.89
	Total	$1,898,119.46	$3,769,522.43

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

TERMINALS, REAL ESTATE AND NEW MILEAGE EXCLUSIVE OF ROADS PURCHASED, FROM NOVEMBER 30, 1906 TO MAY 1, 1907.

		State of Minnesota	Whole System
1.	Salaries and wages	$10,855.38	$103,651.37
2.	Other engineering expenses	4,403.62	60,809.44
3.	Right of way and station grounds	28,827.66	80,755.16
4.	Real estate	.....	41,907.68
5.	Clearing and grubbing	245.72	27,906.04
6.	Grading	340,462.96	1,274,639.26
7.	Tunnels	.....	88,620.57
8.	Bridges, trestles and culverts	10,309.24	123,257.60
9.	Ties	47,202.48	80,237.84
10.	Rails	158,979.61	199,077.58
11.	Track fastenings	18,954.62	46,267.69
12.	Frogs and switches	4,507.09	13,951.75
13.	Track laying and surfacing	28,772.26	41,498.00
14.	Ballast	14,634.39	24,400.61
15.	Station buildings and fixtures	294.87	1,130.63
16.	Engine houses and turntables	67,202.62	67,202.62
17.	Engine and car shops	9,062.82	9,062.82
18.	Shop machinery and tools	57.60	57.60
19.	Water stations	23,176.97	23,927.20
20.	Fuel stations	496.94	496.94
21.	Fencing right of way	37.11	1,067.93
22.	Snow fences and snow structures	.....	4,323.66
23.	Stock yards	.....	.....
24.	Crossings, cattle guards and signs	154.99	542.17
25.	Interlocking or signal apparatus	3,033.97	3,233.59
26.	Docks, wharves and coal bunkers	.....	.....
27.	Transfer boats and barges	.....	.....
28.	Section and tool houses	.....	390.20
29.	Miscellaneous structures	4,331.35	4,120.07
30.	Telegraph lines	54.18	3,278.23
31.	Transportation charges	42,886.32	160,232.20
32.	Operating expenses and earnings	.....	.....
33.	Construction equipment	786.76	833.37
34.	General expenses	.....	146.93
35.	Interest and discount	.....	.....
	Amount paid Great Northern Ry. a/c Seattle terminals, etc	.....	27,925.95
	Store account	.....	44,041.92
	Timber products	.....	1,290.89
	Total	$819,616.33	$2,560,270.31

COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

TERMINALS, REAL ESTATE AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED, FROM MAY 1, 1907 TO APRIL 30, 1908.

		State of Minnesota	Whole System
1.	Salaries and wages	$20,690.76	$202,646.40
2.	Other engineering expenses	9,008.30	101,058.64
3.	Right of way and station grounds	24,271.57	1,212,549.47
4.	Real estate	678,017.01	1,263,230.39
5.	Clearing and grubbing	3,242.90	87,288.33
6.	Grading	806,355.63	6,637,400.00
7.	Tunnels	.....	572,751.83
8.	Bridges, trestles and culverts	27,288.41	2,167,555.32
9.	Ties	113,620.88	669,341.66
10.	Rails	131,850.41	1,126,230.40
11.	Track fastenings	12,669.97	337,717.02
12.	Frogs and switches	2,175.87	23,836.72
13.	Track laying and surfacing	188,978.67	455,040.18
14.	Ballast	166,851.94	315,529.80
	Roadway tools	272.88	973.72
15.	Station buildings and fixtures	654.75	16,004.50
16.	Enginehouses and turntables	} 130,708.94	256,505.11
17.	Engine and car shops		
18.	Shop machinery and tools	3,289.14	3,807.00
19.	Water stations	37,878.55	86,360.40
20.	Fuel stations	2,814.23	3,333.69
21.	Fencing right of way	1,968.93	19,261.24
22.	Snow fences and snow structures	.....	3,181.21
23.	Stock yards	98.92	105.22
24.	Crossings, cattle guards and signs	5,318.26	30,903.83
25.	Interlocking or signal apparatus	744.41	3,501.97
26.	Docks, wharves and coal bunkers	.....	.....
27.	Transfer boats and barges	.....	.....
28.	Section and tool houses	} 7,277.15	42,169.21
29.	Miscellaneous structures		
30.	Telegraph lines	2,689.43	15,872.06
	Terminals	.....	42,289.20
31.	Transportation charges	34,532.30	290,110.38
32.	Operating expenses and earnings	.....	2,159.20
33.	Construction equipment	929.33	1,392.49
34.	General expenses	369.38	2,013.87
35.	Interest and discount	.....	.....
	Rent of equipment	20,386.41	37,924.51
	Store Account	.....	26,906.86
	Timber products	.....	347.94
	Undistributed bills	410.42	5,616.92
	Total	$2,431,014.01	$16,062,220.81

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COMPLAINANT'S EXHIBIT 2. DARLING.—*Cont.*

Improvements and Betterments Charged to Income System

		July 1 to Nov. 30, 1906	Nov. 30, 1906 to May 1, 1907	May 1, 1907 to April 30, 1908	TOTALS July 1, 1906 to April 30, 1908
1.	Right of way	$299.14	$12,678.57	$17,138.56	$29,517.99
2.	Change of line and grade	174,443.57	68,032.66	104,242.94	346,719.17
3.	Widening embankments, ballast, etc	3.90	22,401.52	53,533.88	75,939.30
4.	Increase in weight of rail and fastenings	141,745.85	60,596.22	293,886.19	496,228.26
5.	Spur tracks	48,192.23	56,312.28	91,614.80	196,119.31
6.	Passing tracks	167,661.20	104,308.30	350,764.49	622,733.99
7.	Sidings, wyes and crossovers	51,097.82	58,080.63	166,717.51	275,895.96
8.	Yards and terminals	304,738.40	147,613.05	434,244.55	886,596.00
9.	Interlocking and other signal apparatus	572.71	8,162.94	24,546.11	33,281.76
10.	Telegraph and telephone lines	20,875.81	86,250.38	83,763.40	190,889.59
11.	Bridges, trestles and culverts	79,482.11	63,904.80	826,048.39	969,435.30
12.	Tunnels	.....	.....	.....	.....
13.	Right of way fencing	19,750.44	13,050.29	25,053.10	57,863.83
14.	Snow fencing and sheds	1,167.03	324.60	8,438.67	9,930.30
15.	Cattle guards	33,455.07	23,954.24	43,801.06	101,210.37
16.	Passenger depots	3,481.19	9,316.73	57,921.00	70,718.92
17.	Freight houses and appliances	80,377.42	61,247.91	94,929.74	236,555.07
18.	Other station houses and stock yards	15,590.30	25,896.26	49,869.72	91,356.28
19.	Docks, warehouses and coal bunkers	25,310.82	10,479.90	23,791.77	59,582.49
20.	Fuel and water stations	83,835.55	166,847.07	296,022.74	546,705.36
21.	Machinery department buildings and facilities	183,867.88	153,025.09	1,031,380.29	1,368,273.26
22.	Miscellaneous structures	78,514.03	124,591.77	187,702.61	390,808.41
23.	Additional expenditures on branch roads	591.75	25.39	4,479.11	5,096.25
		$1,514,455.94	$1,277,100.60	$4,269,890.63	
	Grand Total	.....	.....	.....	$7,061,447.17

COMPLAINANT'S EXHIBIT 3. DARLING.

Estimated cost of reproducing Northern Pacific Railway system in Minnesota.

	Estimated Cost as of Dec. 31st, 1906.		Estimated Cost as of April 30th, 1908.
1. Land for right of way, yards and terminals	$23,548,393.41		
2. Grading, clearing and grubbing	10,159,811.00		
3. Protection work, rip rap, retaining walls	374,091.53		
4. Tunnels	358,363.00		
5. Cross ties and switch ties	3,522,385.55		
6. Ballast	1,958,395.00		
7. Rails	5,116,673.73		
8. Track fastenings	627,842.42		
9. Switches, frogs and railroad crossings	265,611.80		
10. Track laying and surfacing	1,297,727.08		
11. Bridges, trestles and culverts	3,474,087.00		
12. Track and bridge tools	27,796.50		
13. Fences, cattle guards and signs	450,392.63		
14. Stock yards and appurtenances	36,952.65		
15. Water stations	289,490.02		$62,693,231.05
16. Coal stations	108,314.00		
17. Station buildings and fixtures	839,412.60		64,049,524.14
18. Miscellaneous buildings	971,168.75		
19. Steam and electric power plants, gas plants	196,338.64		
20. General repair shops	1,142,512.00		
21. Shop machinery and tools	436,542.72		
22. Engine houses, turntables and cinder pits	603,412.12		
23. Track scales	38,520.00		
24. Docks and wharves (include coal and ore docks)	778,634.00		
25. Interlocking plants	64,500.00		
26. Signal apparatus	43,450.00		
27. Telegraph lines and appurtenances	261,004.82		
28. Telephone lines and appurtenances	3,044.20		
29. General office furniture and supplies	67,888.26		
Locomotives	3,263,374.64	$3,454,040.42	$3,389,392.64
Passenger equipment	1,135,335.55	1,349,827.87	1,202,517.53
Freight car equipment	6,173,348.78	7,519,722.98	6,456,173.27
Miscellaneous equipment	186,407.00	372,477.40	226,361.00
	$67,821,221.40	$75,389,299.72	$75,323,968.58
½ year interest on $7,502,747.18 @ 4%			150,054.94
Engineering 3%	2,034,636.64		2,034,636.64
	$69,855,858.04		
Contingencies, 10%	6,985,585.80		$6,985,585.80
	$76,841,443.84		
Interest, 10% (2½ years @ 4%)	7,684,144.38		7,684,144.38
	$84,525,588.22		$92,178,390.34
Stores and supplies in Minnesota	2,259,351.68		2,658,976.01
St. Paul Union Depot, 1/9 interest	610,572.00		610,572.00
Duluth Union Depot, including right of way	1,018,170.25		1,018,170.25
Minnesota Transfer Ry. Co., 1/10 interest	575,600.00		575,600.00
Big Fork & International Falls Ry.			656,034.91
Minnesota & International Ry., 70%	3,460,839.62		3,460,839.62
	$92,450,121.77		$101,158,583.13

Corrections in estimate above as shown in red were testified to, due to error in Auditor's figures and construction charges duplicated in drawing off.

Total estimate was not changed as error was taken care of in percentage allowance.

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COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

MINNESOTA MILEAGE.

	Dec. 31st. 1906.	April 31st, 1908, approximately
Miles single track	967.085	979.62
Miles second main track	108.9	131.59
Miles third main track	1.4	1.58
Miles of passing, side and industry tracks	451.711	512.41
Total	1,529.096	1,625.20

MATERIAL MOVED IN MINNESOTA TO APRIL 30th, 1908, IN CONNECTION WITH THE GRADING OF NORTHERN PACIFIC PROPERTY.

27,140,617 cu. yds., @ $0.33	$8,956,403.00
182,380 cu. yds., solid rock, @ $1.25	227,975.00
6,032,200 lin. ft., corduroy, @ $0.08	482,576.00
285,040 ft. B. M., timber left in sink hole bridges, @ $38.20	10,889.00
43,500 lbs., iron left in sink hole bridges, @ $0.03	1,305.00
87,760 feet, piling left in sink hole bridges, @ $0.45	39,492.00
Clearing and grubbing	441,171.00
Total	$10,159,811.00

COPY

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

TERMINALS, REAL ESTATE AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED, FROM MAY 1st, 1907 TO APRIL 30th, 1908.

	State of Minnesota	Whole System
1. Salaries and wages	$20,690.76	$202,646.40
2. Other engineering expenses	9,008.30	101,058.64
3. Right of way and station grounds	24,271.57	1,212,549.47
4. Real estate	678,017.01	1,263,230.39
5. Clearing and grubbing	3,242.90	87,288.33
6. Grading	806,355.63	6,637,400.00
7. Tunnels	.....	572,751.83
8. Bridges, trestles and culverts	27,288.41	2,167,555.32
9. Ties	113,620.88	669,341.66
10. Rails	131,850.41	1,126,230.40
11. Track fastenings	12,669.97	337,717.02
12. Frogs and switches	2,175.87	23,836.72
13. Track laying and surfacing	188,978.67	455,040.18
14. Ballast	166,851.94	315,529.80
Roadway tools	272.88	973.72
15. Station buildings and fixtures	654.75	16,004.50
16. Engine houses and turntables	130,708.94	256,505.11
17. Engine and car shops		
18. Shop machinery and tools	3,289.14	3,807.00
19. Water stations	37,878.55	86,360.40
20. Fuel stations	2,814.23	3,333.69
21. Fencing right of way	1,968.93	19,261.24
22. Snow fences and snow structures	.....	3,181.21
23. Stock yards	98.92	105.22
24. Crossings, cattle guards and signs	5,318.26	30,903.83
25. Interlocking or signal apparatus	744.41	3,501.97
26. Docks, wharves and coal bunkers	.....	.....
27. Transfer boats and barges	.....	.....
28. Section and tool houses	7,277.15	42,169.21
29. Miscellaneous structures		
30. Telegraph lines	2,689.43	15,872.06
Terminals	.....	42,289.20
31. Transportation charges	34,532.30	290,110.38
32. Operating expenses and earnings	.....	2,159.20
33. Construction equipment	929.33	1,392.49
34. General expenses	369.38	2,013.87
35. Interest and discount, rent of equipment	20,366.41	37,924.51
Store account	.....	26,906.86
Timber products	.....	347.94
Undistributed bills	410.42	5,616.92
Total	$2,431,014.01	$16,062,220.81

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

TERMINALS AND REAL ESTATE, AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED, FROM NOVEMBER 30, 1906 TO MAY 1, 1907.

	State of Minnesota	Whole System
1. Salaries and wages	$10,855.38	$103,551.37
2. Other engineering expenses	4,403.62	60,809.44
3. Right of way and station grounds	28,827.66	80,755.16
4. Real estate	.....	41,907.68
5. Clearing and grubbing	245.72	27,906.04
6. Grading	340,462.96	1,274,639.26
7. Tunnels	.....	88,820.57
8. Bridges, trestles and culverts	10,309.24	123,257.60
9. Ties	47,202.48	80,237.84
10. Rails	158,979.61	199,077.58
11. Track fastenings	18,954.62	46,267.69
12. Frogs and switches	4,507.09	13,951.75
13. Track laying and surfacing	28,772.26	41,498.00
14. Ballast	14,634.39	24,400.61
15. Station buildings and fixtures	294.87	1,130.63
16. Engine houses and turntables	67,202.62	67,202.62
17. Engine and car shops	9,062.82	9,062.82
18. Shop machinery and tools	57.60	57.60
19. Water stations	23,176.97	23,927.20
20. Fuel stations	496.94	496.94
21. Fencing right of way	37.11	1,067.93
22. Snow fences and snow structures	.....	4,323.66
23. Stock yards	.....	.....
24. Crossings, cattle guards and signs	154.99	542.17
25. Interlocking or signal apparatus	3,033.97	3,233.59
26. Docks, wharves and coal bunkers	.....	.....
27. Transfer boats and barges	.....	.....
28. Section and tool houses	.....	390.20
29. Miscellaneous structures	4,331.35	4,120.07
30. Telegraph lines	54.18	3,278.23
31. Transportation charges	42,886.32	160,232.20
32. Operating expenses and earnings	.....	.....
33. Construction equipment	786.76	833.37
34. General expenses	.....	146.93
35. Interest and discount	.....	.....
Amount paid Great Northern Ry. a/c Seattle terminals, etc	.....	27,925.95
Store account	.....	44,041.92
Timber products	.....	1,290.89
Total	$819,616.33	$2,560,270.31

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

TERMINALS, REAL ESTATE AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED, FROM JULY 1, 1906 TO NOVEMBER 30, 1906.

	State of Minnesota	Whole System
1. Salaries and wages	$18,799.37	$85,682.07
2. Other engineering expenses	6,713.99	50,547.27
3. Right of way and station grounds	49,434.32	340,304.07
4. Real estate	9,093.43	47,564.15
5. Clearing and grubbing	.....	6,218.83
6. Grading	958,483.79	1,829,722.70
7. Tunnels	.....	55,642.94
8. Bridges, trestles and culverts	36,275.39	90,606.59
9. Ties	78,179.13	92,529.51
10. Rails	326,638.92	402,734.78
11. Track fastenings	69,370.88	81,686.31
12. Frogs and switches	17,153.26	19,569.97
13. Track laying and surfacing	83,144.75	115,067.26
14. Ballast	23,078.34	43,790.36
15. Station buildings and fixtures	1,688.18	2,454.13
16. Engine houses and turntables	64,611.67	64,611.67
17. Engine and car shops	11,359.76	11,359.76
18. Shop machinery and tools	.50	.50
19. Water stations	27,626.29	31,025.91
20. Fuel stations	5,799.03	5,799.03
21. Fencing right of way	20.48	1,514.21
22. Snow fences and snow structures	.....	537.85
23. Stock yards	46.77	197.09
24. Crossings, cattle guards and signs	977.08	1,488.59
25. Interlocking or signal apparatus	16.81	16.81
26. Docks, wharves and coal bunkers	.....	.....
27. Transfer boats and barges	.....	.....
28. Section and tool houses	.....	225.19
29. Miscellaneous structures	18,133.79	18,249.47
30. Telegraph lines	584.97	3,026.33
31. Transportation charges	90,023.35	292,034.21
32. Operating expenses and earnings	.....	.....
33. Construction equipment	865.21	1,262.50
34. General expenses	.....	30.70
35. Interest and discount	.....	.....
Terminals	.....	78,676.56
Store accounts	.....	4,656.89
Total	$1,898,119.46	$3,769,522.43

POOR C

AMOUNTS CHARGED IMPROVEMENTS AND BETTERMENTS, STATE OF MINNESOTA, DURING TEN MONTHS ENDING APRIL 30TH, 1908.

Lake Superior Division	$480,400.12
St. Paul Division	133,458.91
Minnesota Division	83,810.84
Fargo Division	21,238.19
Total	$718,908.06

IMPROVEMENTS AND BETTERMENTS, DEC. 31ST, 1906, TO JUNE 30TH, 1907.

Summary.

Items 5 to 28, inclusive	$1,119,110.85
Locomotives	64,647.78
Passenger equipment	147,310.34
Freight equipment	1,063,549.93
Miscellaneous equipment	146,126.40

NORTHERN PACIFIC RAILWAY COMPANY

STATE OF MINNESOTA.

EXPENDITURES FOR TERMINALS, REAL ESTATE AND NEW MILEAGE, EXCLUSIVE OF ROADS PURCHASED.

From July 1st, 1906, to Nov. 30th, 1906	$1,898,119.46
From Nov. 30th, 1906, to May 1st, 1907	819,616.33
From May 1st, 1907, to April 30th, 1908	2,431,014.01

IMPROVEMENTS AND BETTERMENTS.

Dec. 31st, 1906, to June 30th, 1907	1,119,110.85
June 30th, 1907, to April 30th, 1908	718,908.06
	$6,986,768.71

ADDITIONS TO EQUIPMENT FROM JUNE 30, 1907, TO APRIL 30, 1908.

Freight	$282,824.27
Passenger	67,181.98
Miscellaneous	39,944.00
Locomotives	126,018.00

From Mechanical Superintendent, June 2nd, 1908.

VALUE OF MATERIAL ON HAND IN THE STATE OF MINNESOTA, APRIL, 1908.

Division stock	$1,358,152.03
Rail	720,627.88
Ties	528,635.40
Fuel	31,848.13
Dining car supplies	19,712.57
Total	$2,658,976.01

NOTE: Above figures include stock carried at Dilworth for use on the Dakota Division, amounting to $28,371.58.

Complainant's Exhibit 3. Darling.—*Cont.*

NET PRICE OF PIPE PER FOOT.

		Wt. per foot
2"	.0992	3.61
2½"	.1552	5.74
3"	.2078	7.54
3½"	.2565	9.00
4"	.2916	10.66
4½"	.3510	12.49
5"	.3915	14.50
6"	.5076	18.76
7"	.6395	23.27
8"	.7614	28.18
9"	.9180	33.70
10"	1.1475	40.00

CAST PIPE.

		Wt. per foot
10"	$2.10 in place	60
8"	1.85 in place	42
6"	1.50 in place	33
4"		22
12"		75

RATES MACHINERY

	Car load lots
St. Paul to Fertile	25.2c
St. Paul to Duluth	14c
St. Paul to Hinckley	12c
St. Paul to Carlton	14c
St. Paul to Brainerd	14.4c
St. Paul to E. Grand Forks	27c
St. Paul to Gladstone	5.4c
St. Paul to Winnipeg Jct.	23½c

BALLASTING.

Ballast 10' at crown x 11" under tie	$2,500.00
Ballast 10' at crown x 8" under tie	1,900.00
Ballast 10' at crown x 6" under tie	1,660.00

TRACK LAYING AND SURFACING PER MILE.

When no ballasting to be done	$1,000.00 per mile.
When ballasting to be applied	750.00 per mile.

PRICE LIST OF TRIMMINGS.

375 Spikes per keg of 200 lbs.
235 ¾" bolts per keg of 200 lbs.
155 ⅞" bolts per keg of 200 lbs.

		Prices used include store charges.
Angle bars	$1.59 cwt.	$1.67
Fish plates	1.25	1.31
Spikes	1.[illegible]	2.09
Tie plates, steel, 5 x 7½ x ⅜	.[illegible]13 each	.1064
Tie plates, steel, 5 x 8 x ⅜	.1082	.1136
Malleable plates, intermediate	.1527	.1603
Malleable plates, joint	.1503	.1588
Rail braces, 56-66-72 lb	.11½	.1207
Rail braces, 85 lb	.13½	.1417
Stub switches	16.85	16.85
Split switches, 56 lb	28.05	29.45
Split switches, 66 lb	29.38	30.85
Split switches, 72 lb	30.20	31.71
Split switches, 85 lb	33.00	34.65
Switch lamps, all kinds	4.75	4.99
Frogs, rigid, 1-9-56	22.50	23.63
Frogs, rigid, 1-9-66	23.65	24.83
Frogs, rigid, 1-9-72	24.45	25.67
Frogs, rigid, 1-9-85	27.65	29.03
Frogs, rigid, 1-7-56	21.70	22.79
Frogs, rigid, 1-7-66	22.75	23.89
Frogs, rigid, 1-7-72	23.50	24.67
Frogs, rigid, 1-7-85	26.50	27.82
Rail steel	29.75 ton	29.75
Nut locks	5.25 M.	5.25
Spring rail frogs, 1-8-72	39.74 each	39.74
Spring rail frogs, 1-7-72	39.00	39.00
Spring rail frogs, 1-9-66	37.70	39.58
Spring rail frogs, 1-9-72	38.55	40.48
Spring rail frogs, 1-9-85	42.55	44.68
Ground throw switch stand	6.40	6.40
Switch stands, high banner	12.77	13.41
Switch stands, low banner	11.70	12.28
Elliot & Whitemore	6.40	6.40
Connecting rods	1.60	1.68
Bridles	1.25	1.31
Switch chairs, single	4.10	4.30
Switch chairs, double	5.10	5.35
Track bolts, ¾ x 3½	2.77 cwt.	2.91
Track bolts, ⅞ x 4¼	2.71 cwt.	2.85
Marden switch stand	12.50 each	12.50
Scrap angle bars and fish plates, 65c cwt	13.00 per 2,000 lbs.	
Scrap bolts and spikes, 82½c cwt	16.45 per 2,000 lbs.	
Scrap tie plates	.78 cwt.	
Scrap rail braces	.603c cwt.	
Scrap iron rails	25.00 per 2,240 lbs.	
Scrap steel	17.35 per 2,240 lbs.	
Scrap frogs and guard rails, 45c cwt	10.15 per 2,240 lbs.	
Scrap split switches and stub switches, 78c cwt	17.50 per ton.	
Scrap switch stands, 78c cwt	17.50 per ton.	

GUARD RAILS.

	Per foot	Per pair
56	$2.40	$7.20
66	2.82	8.46
67	2.86	8.58
70	2.97	8.91
72	3.08	9.24
85	3.65	10.95

PRICE LIST OF TOOLS.

20" ratchet car jack	$14.00 ea.
32" ratchet car jack	18.62 ea.
18" ratchet car jack	12.50 ea.
12" ratchet car jack	4.00 ea.
22" screw jack	5.10 ea.
12" screw jack	3.05 ea.
Peavies	8.15 dz.
Lug hooks	9.25 dz.
Track wrenches	.26 ea.
5' crosscut saws	1.22½ ea.
1" x 5' hip steel bar	1.68 ea.
8 lb. maul	.50 ea.
10 lb. spike maul	.93 ea.
Chopping axe with handle	.45 ea.
Lining bar	1.13 ea.
Chain ⅝ x 16'	2.88 ea.
Standard track gauge	1.75 ea.
Hand axe with handle	.48 ea.
Rubber boots	3.82 pr.
Grindstones, complete set	2.50 ea.
Long handle shovels	6.00 dz.
Post hole digger	5.50 dz.
Hand saws	3.25 dz.
Post hole auger	6.85 dz.
12" wire puller	3.50 ea.
Claw hammer	4.65 dz.
15" monkey wrench	9.12 dz.
Track adze	8.00
No. 5 Parker ratchet drill	3.50 ea.
Stock and dies, ⅜ to 1¼	5.25 ea.
Pipe cutters, up to 2"	1.20 ea.
Pipe vise, 3"	8.00 ea.
No. 2 Edison drop pump and 20' hose	26.00 ea. 26.25 ea.
Red flags	.07½ ea.
Green flags	.07½ ea.
Torpedoes	1.00 gro.
4 lb. mauls with handles	.33 ea.
3½ lb. mauls with handles	.30 ea.
3 lb. mauls with handles	.21 ea.
Champion blower forge	18.00 ea.
150 lb. anvil	10.50 ea.
Push cars	20.50
Hand cars	24.25
12 lb. sledge	.78 ea.
S wrenches, 2 lb.	.10 lb.
Water kegs	.80 ea.
Water pails	1.58 dz.
Whetstones	$2.60 gro.
Weed hoes	3.60 dz.
No. 1 Sheffield velocipede cars	27.00 ea.
Wooden wheelbarrows	1.25 ea.
Iron blocks, single, 1¼"	1.10 ea.
Iron blocks, double, 1¼"	1.80 ea.
Iron blocks, double, 1"	1.14 ea.
Iron blocks, triple, 1"	1.70 ea.
Iron snatch, single, ¾"	1.71 ea.
Iron snatch, double, ¾"	2.35 ea.
1½" rope (46 lb. per 100')	12.50 cwt.
¾" rope (17 lb. per 100')	12.50 cwt.
1" rope (30 lb. per 100')	12.50 cwt.
¾" bridge augers, cork handle	4.75 dz.
⅞" bridge augers, cork handle	5.40 dz.
1" bridge augers, cork handle	6.17 dz.
⅝" bridge augers, cork handle	4.50 dz.
Schnackel bar	3.00 ea.
Track dolly	3.65 ea.
Timber dolly	4.00 ea.
Claw bar	1.64½ ea.
Track jack, "Barrett No. 2"	6.25 ea.
Track jack, "Jenny No. 2"	15.60 ea.
Track shovel	7.86 dz.
Picks and handles	4.10 dz.
Track chisels	.50 ea.
Pearson's ratchet pulley jack	15.00 ea.
24" pipe wrench	1.54 ea.
18" pipe wrench	1.03 ea.
Iron tray wheelbarrows	3.92 ea.
Green lanterns	10.25 dz.
White lanterns	7.00 dz.
Red lanterns	11.25 dz.
Tamping bars	.60 ea.
Dippers	.32 dz.
1 gal. oil cans	2.90 dz.
Padlocks	2.15 dz.
Grass scythes	5.50 dz.
Grass scythe snaths	4.00 dz.
Track drill	18.00 ea.
Track drill bits	31½c to .40 ea.
Snow shovels	4.20 dz.
Brush scythes	5.95
Squirt oilers	1.28 dz.
Switch keys	.75 dz.
Tape lines	2.20 dz.
2 gal. oil cans	3.90 dz.

POOR C

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

FIRST CLASS COMBINATION DEPOT.

Lumber	165,000 lbs.	@	8½c per cwt.	$140.25
Mill work	4,600 "	@	9½c "	4.37
Plaster	12,530 "	@	6.7c "	8.40
Brick and sand	8,000 "	@	5c "	4.00
Cement	600 "	@	6.7c "	.40
Hardware	3,360 "	@	27.2c "	9.14
Paint	650 "	@	13c "	.85
				$167.41
Cost of building, not including freight				$2,800.00

Freight equals 6% of cost.

SECTION HOUSE.

Lumber	56,000 lbs.	@	8½c per cwt.	$47.60
Mill work	1,700 "	@	9½c "	1.62
Plaster	15,000 "	@	6.7c "	10.05
Brick and sand	7,500 "	@	5c "	3.75
Lime	260 "	@	6.7c "	.17
Paint	250 "	@	13c "	.33
Hardware	1,600 "	@	27.2c "	4.35
				$67.87
Cost of building, not including freight				$1,220.00

Freight equals 5-6/10 % of cost.

PRICE LIST.

	Each
Station No.	$362.50
Railroad crossings 56 lbs.	350.00
" 66 "	380.00
" 72 "	396.00
" 75 "	404.00
" 80 "	413.00
" 85 "	
Cross ties—	.75
Oak	.65
Cedar	.60
Tamarack	.40
Pine	
Switch ties—	31.00
Oak	28.20
Fir	24.00
Elm	3.35
Weber joints	3.35
Continuous joints	

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

COST PER MILE OF FENCE.

330 posts,	four	wires	$140.00–$154.00
660 "	"	"	213.00– 234.00
330 "	three	"	130.00– 143.00
660 "	"	"	209.00– 230.00
330 "	"	top rail	246.00– 270.00
330 "	McMullin		180.00– 198.00
330 "	"	five wires	151.00– 166.00
660 "	"	" "	230.00– 253.00
660 "	"	three wires, top rail	270.00– 279.00
660 "	"	seven "	252.00– 277.00

COST OF ITEMS.

Barbed wire	$2.50 per cwt.
McMullin fence	.21 per rod.
7′ posts	.11 each.
Snow fence posts	.39 "
Setting posts	.13 "
Stringing wire	2.50 per wire per mile
Staples	.10 per mile.
Bracing	2.60 "

Distributing material 10%.

4 wires,	220 posts	$125.00	per mile.
4 "	165 "	110.44	"
4 "	440 "	183.04	"
5 "	165 "	122.54	"
5 "	440 "	195.14	"
McMullin,	165 "	154.44	"
"	220 "	169.00	"

WEBER AND CONTINUOUS JOINTS 24′.

Cost of joints $4.00 f. o. b. Troy, N. Y.
Freight to Winnipeg Junc. $.3101.
Total cost of joints $4.3101 at Winnipeg Junction.
Cost given by R. J. Elliott.
Freight given by freight dept.

NO. 7 DOUBLE SPLIT SWITCH.

56 lb. rail	$360.00	
Labor	60.00	$420.00
66 lb. rail	$380.00	
Labor	60.00	$440.00
72 lb. rail	$392.00	
Labor	60.00	$452.00
85 lb. rail	$418.00	
Labor	60.00	$478.00

Switch ties 4748′ $31.00 per M $181.88.

POOR

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

WEIGHT OF MATERIAL.

SPLIT SWITCHES.

56 rail	60 rail	66 rail	72 rail	85 rail
828 lbs.	857 lbs.	901 lbs.	959 lbs.	1050 lbs.

Stub switches..... 332 lbs.

Switch Stands		Rigid Frogs		Spring Rail Frogs	
		1–7			
High banner.....	213 lbs.	56–593 lbs.			
Low banner.....	164 lbs.	66–669 lbs.			
High stand.....	150 lbs.	72–730 lbs.			
Low stand.....	100 lbs.	85–862 lbs.			
High Whittmore.....	210 lbs.	1–8			
Low Whittmore.....	210 lbs.	56–629 lbs.	1–7–72	908 lbs.	
Ground throw.....	100 lbs.	66–718 lbs.	1–7–85	1155 lbs.	
High Elliott.....	180 lbs.	72–782 lbs.	1–8–72	1038 lbs.	
Low Elliott.....	130 lbs.	1–9	1–9–56	908 lbs.	
P. T. derailer.....	100 lbs.	56–675 lbs.	1–9–66	1070 lbs.	
Star.....	210 lbs.	66–763 lbs.	1–9–70	1101 lbs.	
Strom.....	210 lbs.	72–835 lbs.	1–9–72	1168 lbs.	
Switch lamp.....	5 lbs.	85–975 lbs.	1–9–85	1485 lbs.	

AVERAGE COST OF RAILWAY CROSSINGS.

Weight		
5270 lbs.	56 lb. rail.....	$362.50
6200 lbs.	66 lb. rail.....	380.00
6770 lbs.	72 lb. rail.....	390.00
7060 lbs.	75 lb. rail.....	396.00
7530 lbs.	80 lb. rail.....	404.00
8000 lbs.	85 lb. rail.....	413.00

NORTHERN PACIFIC RAILWAY COMPANY

ESTIMATED COST OF TRACK LAYING PER MILE.

Rental of Equipment:		
15 box cars for boarding @ 80c.....	$12.00	
2 water cars @ 80c.....	1.60	
Tool car.....	2.25	
75 flat cars @ 70c.....	52.50	
3 cabooses @ $1.05.....	3.15	
3 locomotives @ $15.....	45.00	
5 miscellaneous store cars, etc., @ 80c.....	4.00	$120.50
Train Service:		
Engine crew 4 days' time @ $6.85.....	$27.40	
Train crew 4 days' time @ $0.77.....	39.08	
Coal, 32 tons @ $3.00.....	96.00	
Oil and miscellaneous supplies, 4 days @ 80c.....	3.20	
Water, 3,000 gallons @ 10c per 1,000.....	3.00	
Engine watchman.....	1.75	170.43
Labor:		
Distributing ties.....	$60.00	
Spacing, bedding and lining ties.....	65.00	
Loading rail and trimmings, 145 T @ 11c.....	15.95	
Distributing rail and trimmings.....	25.00	
Placing tie plates, 5,760 @ ¼c.....	43.20	
Laying, bolting, spiking and lining.....	125.00	
Track tools.....	8.00	
Switch work, including temporary and permanent turnouts	50.00	392.15
Transportation:		
Men—10 men 250 miles @ 1c per mile.....	$25.00	
Coal—32 tons 250 miles @ ½c per ton per mile.....	40.00	
Miscellaneous tools and equipment.....	10.00	75.00
Total.....		$758.08

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COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

NORTHERN PACIFIC RAILWAY COMPANY

ESTIMATED COST OF TRACK MATERIAL, TRACK LAYING AND BALLASTING.

Main Track:			
Ties: 2,860.67 miles @	$1,650.00 material		
	480.00 transportation		
Total,	$2,130.00		$6,093,227.10
Branches:			
Ties: 4,834.12 miles @	1,584.00 material		
	460.80 transportation		
Total,	$2,044.80		9,884,808.58
			$15,978,035.68
Main Track:			
Rails: 2,860.67 miles @	3,627.00 material		
	468.00 transportation		
Total,	$4,095.00		11,714,443.55
Branches:			
Rails: 4,834.12 miles @	3,007.00 material		
	388.00 transportation		
Total,	$3,395.00		16,411,837.40
			$28,126,281.05
Main Line:			
Track fastenings: 2,860.67 miles @	764.39 material		
	75.80 transportation		
Total,	$840.19		2,403,506.32
Branches:			
Track fastenings: 4,834.12 miles @	405.66 material		
	42.44 transportation		
Total,	$448.10		2,166,169.17
			$4,569,675.49
Main Line:			
Ballast: 2,860.67 miles @	1,980.00		5,664,126.60
Branches:			
Ballast: 4,834.12 miles @	990.00		4,785,778.80
			$10,449,905.40
Main Line:			
Track laying: 2,860.67 miles @			
$135.95 material yard and work therein			
375.50 cost of laying track.			
27.50 one extra switch per mile.			
375.00 rent of equipment, train service and hauling to the front.			
$913.95			2,614,509.34
Branch Lines:			
Track laying: 4,834.12 miles @			
$107.61 material yard and work therein.			
375.50 cost of laying track.			
27.50 cost of one extra switch per mile.			
375.00 rent of equipment, train service and hauling to the front.			
$885.61			4,281,145.01
			$6,895,654.35

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

NORTHERN PACIFIC RAILWAY COMPANY

UNIT PRICES USED IN ESTIMATING BRIDGES, TRESTLES & CULVERTS.

Piles:		
Material	$0.18	per lineal foot
Labor	.12	do.
Freight	.15	do.

Stone Masonry:

$14.00, $16.00 and $18.00 per cubic yard, according to location and size of the bridge, which includes freight.

Masonry necessitating use of coffer dam, $20.00 per cubic yard.

Concrete:

$12.00 to $15.00 per cubic yard, according to location and size of bridge, which includes freight.

Timber sub-structure:		
Material	$15.00	per 1,000 FBM
Labor	10.00	do.
Freight	13.20	do.

Timber in trusses:

Same as above, except labor $25.00.

Cast iron in trusses	$2.55 per 100 lbs.
Wrought iron	$3.25 per 100 lbs.

Steel in superstructures:	
I-beams	.033
Plate girders	.0412
Pin connected spans	.0467

To this is added freight at tariff rates from St. Paul to the central point of different sections.

COMPLAINANT'S EXHIBIT 3. DARLING.—*Cont.*

NORTHERN PACIFIC RAILWAY COMPANY

The estimated cost is based on the following prices:

Piling, 25c per lineal foot.
Lumber in docks and cribs, $35.20 per M. FBM.
Lumber in warehouses, $40.00 per M. FBM.
Filling, 22½c per cubic yard.
Riprap and stone fill, $2.00 per cubic yard.
Corrugated iron, 4½c per square foot.
Corrugated iron, freight, 13c per cwt.

Tile culverts:

Material, 12"	$0.39	per lineal foot
" 18"	.56	do.
" 24"	1.25	do.
" 30"	2.10	do.
" 36"	2.75	do.

Labor is estimated at 35c to 75c per lineal foot.
Team haul, 20 miles @ 40c per ton mile.
Freight at tariff rate from St. Paul to central point of each section.

Cast iron culverts:

Material	$34.00	per ton.

Labor and freight, Same as for tile culverts.

Wooden boxes:

Material	$15.00	
Labor	10.00	
Freight	13.20	per 1000 FBM

Concrete culverts:

Material and labor	$7.00	per cu. yd.
Forms	1.00	do.
Excavation	1.00	do.

Freight on stone, .03 per 100 lbs., which is tariff rate on haul of 10 to 30 miles.
Freight on cement, tariff rate from St. Paul to central point of section.
Such temporary bridging as would be required is also included in the cost.

Piling:

Material, f. o. b. Sand Point	$0.18	per lineal foot
Labor	.12	do.
Freight	.15	do.
	$0.45	do.

Timber:

Material	$15.00	per M.
Labor	10.00	do.
Freight	13.20	do.
	$38.20	do.

COMPLAINANT'S EXHIBIT 4, SHEET 1. DARLING

	Yardage	Cost	Cost per Yard	Paid Contractors per yard
Big Fork & International Ry	368,325	$214,515.00	.58	.334
Wadena Jct. to Lake Park	1,982,500	681,418.68	.334	.245
Lake Park to Glyndon	4,344,932	1,552,771.84	.357	.362
Glyndon to Moorhead	105,000	37,738.26	.36	
Dilworth	227,500	105,185.97	.462	....
In Minnesota—Total	6,659,932	$2,377,114.75	.357	....
Alta to Berea	831,588	277,258.45	.333	.295
Wheatland to Buffalo	274,490	93,565.74	.34	....
Haggart to Casselton	240,000	63,806.80	.266	....
Casselton to Wheatland	60,000	12,680.83	.211	....
Laurel	163,140	58,203.00	.357	.325
Livingston to Muir	1,369,751	1,040,245.00	.76	.655
West End to Bozeman	148,105	96,843.00	.67	.55
Garrison to Missoula	3,847,758	1,740,689.00	.452	.396
St. Regis to Paradise	1,793,741	820,351.00	.462	.416
White Pine Hill	2,269,630	1,397,734.00	.577	.577
Vancouver to Kalama	846,171	429,518.00	.507	.46
Nes Perce Camas Branch	2,218,702	1,871,647.00	.84	.74
Cabinet, Noxon & Heron Revision	1,447,784	584,185.00	.403	.34
N. P. System, Total	22,170,792	$10,863,841.57	.49	....

SPOKANE, PORTLAND & SEATTLE RAILWAY.

	Yardage	Cost	Cost per Yard	Paid Contractors per Yard
Kennewick to Vancouver	17,206,574	$11,187,109.00	.65	.573
Spokane to Snake River Jct	7,825,206	5,634,213.00	.72	.674
Snake River Jct. to Pasco	2,122,959	978,614.00	.46	.559
Snake River Jct. to Riparia	3,122,774	2,079,929.00	.666	
Peninsula Cut	1,314,802	425,409.00	.323	
Total	31,592,315	$20,305,274.00	.642	

COMPLAINANT'S EXHIBIT 4, SHEET 2. DARLING.

COST OF GRADING PER ESTIMATES OF APRIL 30th, 1908.

Kennewick-Vancouver Line, S. P. & S. Ry. Co.

			Cost Per C. Y.
5,887,222 cu. yds	Solid rock	$5,191,974.70	.8819
11,676,371 "	All other material	3,584,509.77	.3070
	Overhaul	764,000.94	.0435
	Extra Bills	633,063.34	.0360
17,563,539 "	Material	$10,173,548.75	.5792

Snake River Junction-Spokane Line, S. P. & S. Ry. Co.

3,702,553 cu. yds.	Solid rock	$3,723,396.80	1.0056
4,657,945 "	All other material	1,418,670.92	.3046
	Overhaul	246,517.79	.0295
	Extra bills	247,598.80	.0296
8,360,498 "	Material	$5,636,184.31	.6741

Pasco-Texas Ferry Line, S. P. & S. Ry. Co.

1,686,332 cu. yds.	Solid rock	$1,517,698.80	.90
3,772,144 "	All other material	1,181,744.70	.3133
	Overhaul	191,679.83	.0351
	Extra bills	189,665.85	.0347
5,458,476 "	Material	$3,080,789.18	.5645

Culdesac-Grangeville Line, Clearwater Short Line Ry.

1,248,732 cu. yds.	Solid rock	$1,123,858.80	.90
969,970 "	All other material	314,816.56	.3246
	Overhaul	26,488.16	.0119
	Extra bills	171,457.47	.0773
2,218,702 "	Material	$1,636,620.89	.7377

White Pine Hill Work, N. P. Ry.

634,430 cu. yds.	Solid rock	$602,708.50	.95
1,635,200 "	All other material	577,130.80	.3529
	Overhaul	102,456.10	.0451
	Extra bills	38,841.82	.0171
2,269,630 "	Material	$1,321,137.22	.5812

Livingston-Muir Line, N. P. Ry. Co.

681,282 cu. yds.	Solid rock	$613,153.80	.90
688,469 "	All other material	210,381.89	.3056
	Overhaul	34,110.95	.0395
	Extra bills	21,854.02	.0160
1,369,751 "	Material	$89,500.66	.6567

COMPLAINANT'S EXHIBIT 4, SHEET 3. DARLING.

	Yardage	Cost	Cost per Yard	Paid Contractors per yard
Big Fork & International Ry	368,325	$214,515.00	$0.58	$0.334
Wadena Jct. to Lake Park	1,982,500	681,418.68	.344	.245
Lake Park to Glyndon	4,344,932	1,552,771.84	.357	.362
Glyndon to Moorhead	105,000	37,738.26	.36	
Dilworth	227,500	105,185.97	.462	....
In Minnesota—Total	6,659,932	$2,377,114.75	$0.357	....
Alta to Berea	831,588	277,258.45	.333	.295
Wheatland to Buffalo	274,490	93,565.74	.34	....
Haggart to Casselton	240,000	63,806.80	.266	....
Casselton to Wheatland	60,000	12,680.83	.211	....
Laurel	163,140	58,203.00	.357	.325
Livingston to Muir	1,369,751	1,040,245.00	.76	.655
West End to Bozeman	148,105	96,843.00	.67	.55
Garrison to Missoula	3,847,758	1,740,689.00	.452	.396
St. Regis to Paradise	1,793,741	820,351.00	.462	.416
White Pine Hill	2,269,630	1,397,734.00	.577	.577
Vancouver to Kalama	846,171	429,518.00	.507	.46
Nez Perce Camas Branch	2,218,702	1,871,647.00	.84	.74
Cabinet, Noxon & Heron Revision	1,447,784	584,185.00	.403	.34
N. P. System, Total	22,170,792	$10,863,841.57	.49	....

SPOKANE, PORTLAND & SEATTLE RAILWAY.

	Yardage	Cost	Cost per Yard	Paid Contractors per yard
Kennewick to Vancouver	17,206,574	$11,187,109.00	$0.65	$0.573
Spokane to Snake River Jct	7,825,206	5,634,213.00	.72	.674
Snake River Jct. to Pasco	2,122,959	978,614.00	.46	.559
Snake River Jct. to Riparia	3,122,774	2,079,929.00	.666	
Peninsula Cut	1,314,802	425,409.00	.323	
Total	31,592,315	$20,305,274.00	.642	

COMPLAINANT'S EXHIBIT 4. SHEET 4. DARLING.

COST OF BALLASTING A CUBIC YARD—VARIOUS SECOND TRACK WORK MINNESOTA AND NORTH DAKOTA.
1906-1908.

	Ballast Cu. Yds.	Miles	Cost	Average Cost per Cu. Yd.
Wadena Junction to Lake Park, second main track	175,500	54	$149,266.00	$0.85
Lake Park to Glyndon, second main track	.....	.....	.....	.....
Glyndon to Moorhead, second main track	22,757	8.62	11,300.24	.50
Haggart to Casselton, second main track	53,655	15.33	43,038.00	.80
Wheatland to Buffalo, second main track	34,300	9.8	.....	...
Alta to Berea, second main track	33,810	9.66	29,731.00	.88
Casselton to Wheatland, second main track	21,210	6.06	12,026.00	.57

COMPLAINANT'S EXHIBIT 4, SHEET 5. DARLING.

COST OF TRACK TIES—VARIOUS SECOND TRACK WORK, MINNESOTA AND NORTH DAKOTA. 1906-1908.

	Total No. of Ties	Miles	Cost	Average Cost per Mile	Average Cost per Tie
Wadena Junction to Lake Park, second main track	156,600	54	$64,111.60	$1,020.59	$0.41
Lake Park to Glyndon, second main track	.....	.....	.....	.....	....
Glyndon to Moorhead, second main track	24,998	8.62	14,384.14	1,720.89	.59
Haggart to Casselton, second main track	44,457	15.33	19,333.77	1,261.17	.43
Wheatland to Buffalo, second main track	.....	.....	.....	.....	...
Alta to Berea, second main track	28,014	9.66	21,290.64	2,204.00	.76
Casselton to Wheatland, second main track	17,574	6.06	12,535.22	2,068.52	.71

COMPLAINANT'S EXHIBIT 4, SHEET 6. DARLING.

COST OF TRACK LAYING, SURFACING AND BALLASTING VARIOUS SECOND TRACK WORK, MINNESOTA AND NORTH DAKOTA.
1906-1908.

	Ballast Cu. Yds.	Miles	Cost	Average Cost per Mile of Track Laying and Ballasting
Wadena Junction to Lake Park, second main track	175,500	54	$189,766.42	$3,514.00
Lake Park to Glyndon, second main track	22,757	8.62	16,687.74	1,936.00
Haggart to Casselton, second main track	53,655	15.33	54,536.05	3,557.00
Wheatland to Buffalo, second main track	34,300	9.8	.....	.....
Alta to Berea, second main track	33,810	9.66	34,976.05	3,828.00
Casselton to Wheatland, second main track	21,210	6.06	16,571.87	2,734.00

COMPLAINANT'S EXHIBIT 5. DARLING.

NORTHERN PACIFIC RAILWAY COMPANY

WESTMINSTER TUNNEL.

Class of work	Quantities	Estimated cost per unit	Amount	Remarks
Stone masonry	6,379 cu. yds.	$10.50	$66,979.50	Abutments
" "	675.6 "	7.00	4,729.20	Backing
" "	1,176.4 "	17.00	19,998.80	Arch
Brick	637,574	20.00 per M	12,751.48	
"	1,189,385	18.00 "	21,408.93	
Concrete	1,362.5 cu. yds.	7.00	9,537.50	Foundation
"	2,733 sq. yds.	.75	2,049.75	Lining
Timber	186,264 FBM	38.20	7,115.28	
Piling	27,242 lin. ft.	.45	12,258.90	
Excavation	19,427 cu. yds.	.40	7,770.80	
"	3,890 "	.75	2,917.50	Foundation
			$167,517.64	
Total cost			10,000.00	
Temporary bridges			$177,517.64	

TUNNEL NO. 2.

Class of Work	Quantities	Estimated cost per unit	Amount	Remarks
Stone masonry	947.5 cu. yds.	$10.50	9,948.75	Abutments
" "	292.1 "	17.00	4,965.70	Arch
" "	154.2 "	7.00	1,079.40	Backing
Concrete	376.6 "	7.00	2,636.20	Foundation
"	259.7 sq. yds.	.75	194.78	Lining
Timber	9,056 FBM	38.20	345.94	
Excavation	707.4 cu. yds.	.75	530.55	Wet
			19,701.32	
Total cost				
Temporary bridges, double track 100' @ $20			2,000.00	
			$21,701.32	

COMPLAINANT'S EXHIBIT 5. DARLING—*Cont.*

TUNNEL NO. 1.

Class of Work	Quantities	Estimated cost per unit	Amount	Remarks
Stone masonry	2,338 cu. yds.	$10.50	$24,549.00	Abutments
" "	178.9 "	7.00	1,252.30	Backing
" "	1,011 "	17.00	17,187.00	Arch
Concrete	970.4 "	7.00	6,792.80	Foundation
"	1,164.6 "	.75	873.45	Lining
Timber	38,027 FBM	38.20	1,452.63	
Excavation	791.8 cu. yds.	.75	593.85	Wet
"	1,089.7 "	.40	435.88	Dry
Total cost			$53,136.91	
Temporary bridges, 400' double track @ $20			8,000.00	
			$61,136.91	

EAST SEVENTH STREET TUNNEL.

Class of Work	Quantities	Estimated cost per unit	Amount	Remarks
Stone masonry	4,222 cu. yds.	$10.50	$44,331.00	Abutments
" "	1,180 "	17.00	20,060.00	Arch
" "	1,220 "	7.00	8,540.00	Backing
Concrete	400 "	7.00	2,800.00	
Timber	55,250 FBM	38.20	2,110.55	
Piling	9,720 lin. ft.	.45	4,374.00	
Excavation	2,986 cu. yds.	.75	2,239.50	
Total cost			$84,455.05	
Temporary bridges			13,600.00	
			$98,055.05	

Summary:

Westminster tunnel	$177,517.64
Tunnel No. 2	21,701.32
Tunnel No. 1	61,136.91
East Seventh Street tunnel	98,055.05
	$358,410.92

COMPLAINANT'S EXHIBIT 6. DARLING.

NORTHERN PACIFIC RAILWAY COMPANY

Freight car mileage for year ending Dec. 31st, 1906.

Freight car mileage system	402,371,927 miles
" " " Minnesota	81,474,370 "

Freight car-mileage in Minnesota = 20.25% of system.

Passenger car mileage for year ending Dec. 31st, 1906.

Passenger car mileage,	55,888,581 miles
" " " Minnesota	10,758,778 "

Passenger car mileage in Minnesota = 19.25% of system.

Locomotive mileage in Minnesota for year ending Dec. 31st, 1906, 7,612,199 miles

Cost of reproduction of locomotives assigned to Minnesota	$3,263,374.64	$3,263,374.64
Less amount on account of mileage of above engines in other states based upon proportion of total mileage of engines to the mileage of same engines in other states		264,777.75
		$2,998,596.89

COMPLAINANT'S EXHIBIT 7. DARLING.

NORTHERN PACIFIC MILEAGE AS OF JUNE 30th, 1907.

	Minnesota	Wisconsin	N. Dakota
Lake Superior Division:			
Main track	322.63	134.04	
Second track	7.33	.85	
Spurs and yard tracks	199.47	51.53	
	529.43	186.42	
St. Paul Division:			
Main track	305.39		
Second track	28.78		
Spurs and yard tracks	166.86		
	501.03		
Minnesota Division:			
Main track	339.59	.....	184.56
Second track	64.18	.....	.....
Third track	1.58	.....	.....
Spurs and yard tracks	107.69	.....	26.37
	513.04		210.93

Total in Minnesota 1543.50

COMPLAINANT'S EXHIBIT 8. COOPER. (N. P.)

SCHEDULE OF PROPERTY PURCHASED by Thomas Cooper, Land Commissioner, Northern Pacific Railway Company, from December 1st, 1904 to May 31st, 1908.

Location	Miles from St. Paul	For What Purpose	Cost
St. Paul, Minn.		Additional terminal property	$353,526.69
Minneapolis, Minn.	10	Right of way for new passenger line	169,811.41
Minneapolis, Minn.	10	Additional terminal property	78,669.78
St. Cloud, Minn.	76	Additional station grounds	2,602.50
Darling, Minn.	112	Gravel pit	3,537.50
Superior, Wisconsin	150	Additional terminal property	160,220.05
Crow Wing County, Minn.	148	Iron ore property	77,773.75
Brainerd, Minn.	138	Tie treating yard	1,255.55
Staples, Minn.	142	Additional terminal property	30,783.16
Wadena to Glyndon, Minn.	200	Right of way for line changes	163,050.40
Dilworth, Minn.	246	New terminal yard and townsite	41,636.85
Casselton Branch, N. D.	270	Additional right of way	1,353.35
Magnolia, N. D.	281	Reservoir	1,519.80
Oriska, N. D.	298	Reservoir	19,011.54
Alta to Berea, N. D.	308	Right of way for line change	44,413.87
Jamestown, N. D.	343	Additional terminal property	5,268.88
Edgeley, N. D.	358	Additional station grounds	1,516.34
Edgeley to Streeter, N. D.	378	Right of way for new line	8,347.58
Denhoff to Turtle, N. D.	450	Right of way for new line	4,807.01
Sykeston Branch, N. D.	413	Right of way for snow fences	1,044.74
Ladoga, N. D.	410	Gravel pit	1,402.25
Sterling, N. D.	420	Reservoir	7,466.30
McKenzie, N. D.	426	Reservoir	2,501.75
Mandan, N. D.	450	Additional terminal property	9,379.19
Missouri River Branches, N. D.	480	Right of way for new lines	25,143.38
Sweetbriar, N. D.	466	Reservoir	1,010.76
Glenullen, N. D.	508	Reservoir	3,953.81
Hebron, N. D.	521	Reservoir	857.68
Glendive, Montana	666	Additional terminal property	6,301.55
Laurel, Montana	907	New terminal yard	39,514.56
Livingston to Muir, Mont.	1015	Right of way for new line	9,031.45
Butte, Montana	1128	Additional station grounds	17,618.02
Garrison to Missoula, Mont.	1230	Right of way for line changes	181,054.93
Turah, Montana	1240	New terminal yard	9,062.98
Paradise to St. Regis, Mont.	1340	Right of way for new line	17,762.39
Paradise, Montana	1325	New terminal yard and townsite	47,937.52
Belknap to Tusear, Mont.	1363	Right of way for line change	37,459.57
Sand Point, Idaho	1443	New terminal yard	8,911.00
Yardley, Washington	1508	New terminal yard	19,869.50
Spokane, Washington	1511	Additional terminal property	9,737.54
Palouse Branch, Wash.	1612	Additional right of way	3,512.73
Lewiston, Idaho	1658	Additional station grounds	76,039.14
Culdesac to Grangeville, Ida.	1681	Right of way for new line	99,250.56
Spokane to Pasco, Wash.	1611	" " " "	804,062.67
Texas Ferry Branch, Wash.	1651	" " " "	38,525.02
Kennewick to Vancouver, Washington	1785	" " " "	1,011,602.63
Vancouver to Portland, Ore.	1898	" " " "	189,028.27
Portland, Oregon	1903	New terminal property	267,500.00
Vancouver, Washington	1895	Additional terminal yard	141,198.37
Vancouver to Kalama, Wash.	2026	Right of way for line change	38,939.96
Kalama to Centralia, Wash.	1991	" " " "	22,772.17
Kelso to Grays Bay, Wash.	2026	Right of way for new line	247,462.69
Tacoma to Tenino, Wash.	1927	" " " "	831,162.36
Tacoma, Washington	1907	Additional station grounds	440,797.88
		Carried forward,	$5,838,181.14

COMPLAINANT'S EXHIBIT 8. COOPER. (N. P.)—Cont.

Location	Miles from St. Paul	For What Purpose	Cost
		Brought forward	$5,838,181.14
Tacoma, Washington	1907	Additional shop grounds	47,088.45
Seattle, Washington	1911	Outside yard	67,497.05
Seattle, Washington	1911	Right of way for new line	54,594.71
Snohomish, Washington	1949	Right of way for channel change	15,466.79
			91,616.41
Bellingham, Washington	2030	Additional station grounds	2,775.09
Aberdeen, Washington	1909	Additional right of way	20,522.26
Hoquiam, Washington	2001	Additional station grounds	
		Total	$6,139,342.35

Correct:

THOMAS COOPER,

Land Commissioner, Northern Pacific Ry. Co.

St. Paul, Minnesota, June 1st, 1908.

COMPLAINANT'S EXHIBIT 9. COOPER. (N. P.) REVISED—*Cont.*

WISCONSIN RECAPITULATION.

	Acres	Valuation
Main Line—Ashland to Superior	1,914.02	$319,726.50
Washburn Branch	415.38	75,927.00
Grantsburg Branch	142.67	18,965.50
Superior Terminal	1,175.04	1,650,910.98
	3,647.11	$2,065,529.98

Average per acre, $566.36.

MINNESOTA.

DISTRICT	Acres	Value per Acre	Total Value
West Duluth to White Bear	2,340.48	$205.89	$481,870.00
Fond du Lac Branch	236.15	428.58	101,209.00
Carlton Yards	57.04	124.00	7,073.00
Cloquet Branch	84.97	341.55	29,021.00
Miller Branch	61.06	105.00	6,411.00
Grantsburg Branch	191.44	50.83	9,731.00
Taylor's Falls Branch	253.23	330.03	83,574.00
Stillwater Branch	151.44	1,736.69	263,003.00
State Line to Staples	4,620.95	218.39	1,009,182.00
White Bear to St. Paul	172.27	1,160.14	156,267.00
Minneapolis-White Bear Branch	142.19	533.43	75,841.00
Northtown Jct. to Staples	1,463.41	273.80	400,686.25
Brainerd to Little Falls	384.48	95.67	36,785.25
Little Falls to Morris	1,259.55	172.62	217,426.00
Staples to Moorhead	5,056.71	243.63	1,231,961.00
Fergus Falls Branch	1,111.56	242.66	269,728.65
Red River Branch	1,442.89	316.92	457,272.95
Red Lake Falls Branch	793.01	124.82	98,984.40
Keystone Branch	74.08	120.00	8,889.00
Total, excluding Twin Cities and Duluth	19,896.91	$248.53	$4,944,924.00
Duluth Terminals	600.91	$8,578.99	$5,155,203.75
St. Paul Terminals	751.68	13,180.99	9,907,889.34
Minneapolis Terminals	309.87	17,080.77	5,292,819.22
Totals, Twin Cities and Duluth Ter...	1,662.46	$12,244.45	$20,355,912.31
Grand Totals	21,559.37	$1,173.54	$25,300,836.91

COMPLAINANT'S EXHIBIT 9. COOPER. (N. P.) REVISED.

Valuation of Right of Way and Other Operating Property owned by the Northern Pacific Railway Company and by Other Railway Companies, the Capital Stock of which is owned by the Northern Pacific Railway Company in whole or in part as indicated, as of date June 1st. 1908.

Location	Total		In Terminals as Specified			Excluding Terminals Specified			Miles Main Track	Per Mile Main Track
	Acres	Valuation	Terminal	Acres	Valuation	Acres	Valuation	Per Acre		
Wisconsin	3,647.11	$2,065,529.93	Superior	1,175.04	$1,650,910.93	2,472.07	$414,619.00	$167.72	134.04	$3,093.25
Minnesota	21,559.37	25,300,836.91	Duluth St. Paul Minneapolis	600.91 751.68 309.87	5,155,203.75 9,907,889.34 5,292,819.22	19,896.91	4,944,924.60	248.53	967.89	5,108.97
North Dakota	31,831.76	10,353,506.00				31,831.76	10,353,506.00	325.25	1,162.32	8,907.62
1 Montana	51,916.50	7,067,471.39	Butte	223.76	2,000,000.00	51,692.74	5,067,471.39	98.04	1,389.15	3,647.89
2 Idaho	7,019.85	1,045,681.56				7,019.85	1,045,681.56	148.96	311.56	3,356.28
3 Washington	36,973.30	60,269,582.16	Spokane Tacoma Seattle Everett Bellingham South Bend Aberdeen and Hoquiam	422.31 683.35 447.33 124.68 71.69 35.63 69.83	7,240,293.41 12,600,777.08 28,916,765.34 374,040.00 430,596.47 249,410.00 698,300.00	35,118.48	9,759,399.86	277.89	1,491.51	6,543.30
Oregon	756.72	648,612.00				756.72	648,612.00	857.14	39.16	1,656.31
4 Minnesota and International Ry. Co.	1,911.94	95,597.25				1,911.94	95,597.25	50.00	122.00	783.58
5 Big Fork and International Falls Ry. Co.	370.73	48,399.81				370.73	48,399.81	130.55	34.00	1,423.52
6 Washington & Columbia River Ry. Co.	2,733.00	371,200.00				2,733.00	371,200.00	135.82	168.86	2,198.26
7 Port Townsend Southern Ry. Co.	461.16	75,204.00				461.16	75,204.00	163.70	43.63	1,723.70
8 Missouri River Ry. Co.	1,831.41	25,143.38				1,831.41	25,143.38	13.73	114.18	220.21
9 Duluth Union Depot and Terminal Co.	6.94	420,625.00	Duluth	6.94	420,625.00					
10 Gray's Harbor and Columbia River Ry. Co.	2,461.81	247,462.69				2,461.81	247,462.69	100.52	19.05	13,011.16
Totals	163,481.60	$108,634,852.03		4,923.02	$74,937,630.54	158,558.58	$33,097,221.54	$208.74	$5,997.35	$5,518.64

1 Includes 461.53 acres, value $17,762.39, covering 20.25 miles right of way new line St. Regis to Paradise, under construction. The 20.25 miles included in "Miles Main Track."
2 Includes 662.11 acres, value $99,250.56, covering 46.65 miles right of way Nez Perce and Camas Branch, under construction. The 46.65 miles included in "Miles Main Track."
3 Includes 659.19 acres, value $831,162.36, covering 28.06 miles right of way new line Tacoma to Tenino, for which right of way is being acquired preliminary to commencement of construction. The 28.06 miles included in "Miles Main Track."
4 N. P. Ry. Co. owns 70% of the Capital Stock of the M. & I. Ry. Co. The figures given above are for 70% of the acreage, valuation and mileage.
5 N. P. Ry. Co. owns all of the Capital Stock of the B. F. & I. F. Ry. Co. The valuation is actual cost.
6 N. P. Ry. Co. owns all of the Capital Stock of the W. & C. R. Ry. Co.
7 N. P. Ry. Co. owns all of the Capital Stock of the P. T. S. Ry. Co.
8 N. P. Ry. Co. owns all of the Capital Stock of the Missouri River Ry. Co. Right of way is being acquired preliminary to commencement of construction. The figures given show actual area and mileage acquired, and actual cost of same.
9 N. P. Ry. Co. owns all of the Capital Stock of the D. U. D. & T. Co.
10 N. P. Ry. Co. owns all of the Capital Stock of the G. H. & C. R. Ry. Co. Right of way is being acquired preliminary to commencement of construction. The figures given show actual area and mileage acquired, and actual cost of same.

COMPLAINANT'S EXHIBIT 9. COOPER. (N. P.) REVISED—*Cont.*

NORTH DAKOTA.

DISTRICT	Acres	Value per Acre	Total Value
Fargo to Jamestown	4,183.08	$450.00	$1,882,386.00
Jamestown to Missouri River	5,208.10	350.00	1,822,835.00
Missouri River to State Line	9,879.33	350.00	3,457,765.50
Fargo & Southwestern	2,421.61	350.00	847,563.50
Casselton Branch	969.03	200.00	193,806.00
Cooperstown Branch	996.11	350.00	348,638.50
James River Branch	652.16	150.00	97,824.00
Oakes Branch	234.62	100.00	23,462.00
Devils Lake Branch	1,953.14	350.00	683,599.00
Sykeston Branch	1,519.41	150.00	227,911.50
Oberon Branch	495.04	150.00	74,256.00
Linton Branch	610.39	100.00	61,039.00
Red River Branch	1,354.73	300.00	406,419.00
Fergus Falls Branch	1,096.39	150.00	164,458.50
Fairview Branch	152.75	100.00	15,275.00
Totals	31,725.89	.....	$10,307,238.50
Joint property at Oakes—N. P. & C. & N. W.—½	86.82	$500.00	43,410.00
Joint property at Linton—N. P. & C. M. & St. P.—½	19.05	150.00	2,857.50
	31,831.76	.....	$10,353,506.00

Average, $325.25 per acre.

COMPLAINANT'S EXHIBIT 9. COOPER. (N. P.) REVISED—*Cont.*

MONTANA.

DISTRICT	Acres	Value per Acre	Total Value
State Line to Glendive	4,884.96	$25.00	$122,124.00
Glendive to Billings	11,565.10	100.00	1,156,510.00
Billings to Helena	12,086.95	100.00	1,208,695.00
Helena to Trout Creek	11,163.55	100.00	1,116,355.00
Trout Creek to State Line	1,530.80	25.00	38,270.00
Butte Line (excepting Butte)	2,037.66	100.00	203,766.00
Red Bluff Branch	375.91	100.00	37,591.00
Pony Branch	98.87	100.00	9,887.00
Ruby Valley Branch	625.02	100.00	62,502.00
Rocky Fork Branch	881.19	200.00	176,238.00
Clarks Fork Branch	283.93	150.00	42,589.50
Park Branch	871.59	75.00	65,369.25
Cokedale Branch	42.70	75.00	3,202.50
Marysville Branch	255.46	75.00	19,159.50
Red Mountain Branch	185.09	75.00	13,881.75
Philipsburg Branch	450.76	200.00	90,152.00
Cœur d'Alene Line (in Mont.)	2,560.01	150.00	384,001.50
Bitter Root Branch	923.03	300.00	276,909.00
Boulder Branch	75.18	75.00	5,638.50
Wickes Branch	7.80	75.00	585.00
Elkhorn Branch	325.65	50.00	16,282.50
Butte Terminal	223.76	.....	2,000,000.00
St. Regis to Paradise	461.53	38.49	17,762.20
Totals	51,916.50	.....	$7,067,471.20

Average per acre, $136.13.

IDAHO.

DISTRICT	Acres	Value per Acre	Total Value
State Line to State Line	3,173.36	$75.00	$238,002.00
Cœur d'Alene Line	404.52	200.00	80,904.00
Burke Branch	134.44	250.00	33,610.00
Sunset Branch	64.04	50.00	3,202.00
Fort Sherman Branch	183.40	300.00	55,020.00
Palouse & Lewiston Branch	954.64	400.00	381,856.00
Genesee Branch	95.44	300.00	28,632.00
Clearwater Short Line	1,155.00	75.00	86,625.00
Nez Perce and Camas Branch	662.11	149.90	99,250.56
Lapwai Branch	192.90	200.00	38,580.00
Totals	7,019.85	.....	$1,045,681.56

Average per acre, $148.96.

COMPLAINANT'S EXHIBIT 9. COOPER. (N. P.) REVISED—*Cont.*

WASHINGTON.

DISTRICT	Acres	Value per Acre	Total Value
State Line to State Line	20,953.90	$300.00	$6,286,170.00
Auburn to Sumas	1,762.44	200.00	352,488.00
Palouse & Lewiston Branch	1,103.55	300.00	331,065.00
Genesee Branch	280.00	200.00	56,136.00
Farmington Branch	73.29	200.00	14,658.00
Spokane & Seattle Ry	360.02	100.00	36,002.00
Wash. Cent. Branch—Cheney to Adrian	2,009.03	200.00	401,806.00
Roslyn Branch	72.79	150.00	10,918.50
Buckley Line	1,372.94	250.00	343,235.00
Green River Branch	372.78	150.00	55,917.00
Burnett Branch	54.68	150.00	8,202.00
Wilkeson Branch	232.35	150.00	34,882.00
Crocker Branch	73.93	50.00	3,696.00
Orting Branch	94.62	50.00	4,731.00
Snoqualmie Branch	448.02	150.00	67,203.00
Everett Branch	104.57	150.00	15,685.50
Seattle Belt Line	299.64	400.00	119,856.00
Olympia Branch—Lakeview to Centralia via Gate	706.92	300.00	212,076.00
Gray's Harbor Branch—Gate to Oceosta	621.89	100.00	62,189.00
Elma Branch	114.20	50.00	5,710.00
Peninsular Branch	330.56	100.00	33,056.00
Cosmopolis Branch	3.53	100.00	353.00
South Bend Branch	686.37	150.00	102,950.50
Darrington Branch	466.54	100.00	46,654.00
Vancouver Branch	408.04	400.00	163,216.00
Yacolt Branch	353.62	100.00	35,362.00
Bellingham Branch	140.15	100.00	14,015.00
Monte Cristo Branch	788.74	75.00	59,155.00
Sunnyside Branch	169.50	300.00	50,850.00
Point Defiance Line	659.19	1,260.88	831,162.36
Everett Terminal	124.68	3,000.00	374,040.00
Bellingham Terminal	71.69	6,006.36	430,596.47
South Bend Terminal	35.63	7,000.00	249,410.00
Aberdeen & Hoquiam Terminals	69.83	10,000.00	698,300.00
Tacoma Terminal	683.35	18,439.71	12,600,777.08
Seattle Terminal	447.33	64,643.03	28,916,765.24
Spokane Terminal	422.31	17,449.49	7,240,293.41
Totals	36,973.30	.....	$60,269,582.16

Average per acre, $1,630.09.

OREGON.

DISTRICT	Acres	Value per Acre	Total Value
Goble to Portland	743.06	$200.00	$148,612.00
Portland Terminal	13.66	.....	500,000.00
Totals	756.72	.....	$648,612.00

Average per acre, $857.14.

MINNESOTA & INTERNATIONAL RAILWAY.

DISTRICT	Acres	Price per Acre	Total Value
Brainerd to Northome	2,092.98	$50.00	$104,649.00
Bull Head Lake Branch	138.79	50.00	6,939.50
Big Fork and Northern	499.58	50.00	24,979.00
Total	2,731.35	.....	$136,567.50

Average per acre, $50.00.

N. P. Railway Company's interest—
70 per cent, 1,911.94 acres $95,597.25

BIG FORK & INTERNATIONAL FALLS RY. CO.

This company has constructed a line which is an extension of the Minnesota & International Railway, from Big Fork to International Falls. All of the capital stock of the company is owned by the Northern Pacific Railway Company. The figures given in valuation statement show the actual cost and actual mileage. The line was constructed in 1906 and 1907.

WASHINGTON AND COLUMBIA RIVER RAILWAY.

DISTRICT		Acres	Value per Acre	Total Value
Walla Walla County	Right of Way	1,490	$75.00	$124,200.00
	Station grounds	166		
Columbia County		86	100.00	8,600.00
Umatilla County	Right of Way	546	100.00	61,900.00
	Station grounds	73		
Walla Walla Terminals		22	.....	100,000.00
Waitsburg Terminals		9	.....	2,500.00
Dayton Terminals		10	.....	25,000.00
Pendleton Terminals		11	.....	25,000.00
Covello Branch	Right of Way acquired	320	75.00	24,000.00
	Line not used			
Totals		2,733	.....	$371,200.00

Average value per acre, $135.82.

PORT TOWNSEND SOUTHERN RAILWAY.

DISTRICT	Acres	Value per Acre	Total Value
Port Townsend to Quilcene	364.20	$100.00	$36,420.00
Tenino to Olympia	96.96	400.00	38,784.00
Totals	461.16	.....	$75,204.00

Average per acre, $163.70.

POOR COPY

MISSOURI RIVER RAILWAY COMPANY.

This company was organized for the purpose of constructing railroad lines along the Missouri River from Mandan north, connecting with the Great Northern Railway at or near Williston, North Dakota, and from Mandan south, to the north boundary line of South Dakota. All of the capital stock of the company is owned by the Northern Pacific Railway Company. Preliminary to the commencement of construction a portion of the right of way has been acquired, to the extent of 1,831.41 acres, at an actual cost of $25,143.38.

DULUTH UNION DEPOT & TRANSFER COMPANY.

Yard	4.92 Acres	$15,625 per A.	$76,875.00
Depot Block	2.02 "		343,750.00
	6.94 "		$420,625.00

Average per acre, $6,060.88.

GRAY'S HARBOR & COLUMBIA RIVER RAILWAY COMPANY.

This company was organized to construct a railroad commencing at a connection with the existing main line of the Northern Pacific Railway Company near Kelso, Wash., thence along the north bank of the Columbia River to Gray's Bay, thence in a northerly direction to Gray's Harbor. All of the capital stock of the company is owned by the Northern Pacific Railway Company. Preliminary to commencement of construction, right of way and terminal grounds have been acquired along the north bank of the Columbia River to the extent of 2,461.81 acres, covering 19.05 miles, at an actual cost of $247,462.69.

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COMPLAINANT'S EXHIBIT 10. COOPER. (N. P.)

STATEMENT SHOWING ACTUAL COST OF RIGHT OF WAY PURCHASED IN YEARS 1905, 1906, 1907 AND 1908, FOR LINE CHANGES AND NEW LINES AS DESCRIBED.

Location	Area Purchased	Miles Right of Way	Total Cost	Cost per Acre	Cost per Mile
Line changes between Wadena and Glyndon, Minn.	606.129	23.320	$163,050.40	$268.12	$6,991.87
Line changes between Alta and Beres, N. D.	466.90	8.37	44,413.87	95.13	5,306.33
Line changes between Garrison and Missoula, Mont.	478.789	15.00	181,054.93	378.15	12,070.33
Line changes between Vancouver and Kalama, Wash.	283.62	9.00	38,939.96	137.30	4,304.44
Line changes between Belknap and Tuscor, Mont.	398.46	14.096	37,459.57	94.01	2,657.46
New Line Paradise to St. Regis, Mont.	461.53	20.253	17,762.39	38.49	877.03
New Line Spokane to Portland (excluding Portland, Vancouver and Pasco Terminals)	7,358.15	295.77	1,946,967.55	264.60	6,582.71
New Line Tacoma to Tenino, Wash.	659.19	28.063	831,162.36	1,260.88	29,617.73
New Line Cul de Sac to Grangeville, Idaho	662.11	46.65	99,250.56	149.90	2,127.56
Totals	11,376.878	460.522	$3,360,061.59	$295.34	$7,296.20

St. Paul, Minn.
June 1st, 1908.

Correct:
THOMAS COOPER,
Land Commissioner.
Northern Pacific Railway Company.

COMPLAINANT'S EXHIBIT 11. COOPER. (N. P.)

Estimated saving to the Northern Pacific Railway Company in the cost of fuel for locomotives in the year 1907, resulting from the use of coal from the mines of the Northwestern Improvement Company, all of the capital stock of which company is owned by the Northern Pacific Railway Company; the saving is determined by comparing the cost of the cheapest available substitute, with the cost of production from the mines of the Company.

RED LODGE, MONTANA.

Capacity of mines	2,000 tons per day
Estimated quantity of reclaimable coal owned	77,583,800 tons
Output for year 1907	447,763 tons
Used by N. P. Ry. Co. in year 1907	367,794 tons
Price charged N. P. Ry. Co.	$2.00 per ton

This coal is used in the district between the Missouri River on the east and Helena and Butte on the west. The cheapest available source of supply which could be substituted therefor is the Sheridan district, Wyoming. Being unable to get a sufficient supply from its own mines, the Northern Pacific purchased last year from the Sheridan Coal Company 59,464 tons, at a price of $2.67 per ton f. o. b. Billings. The following is a comparison of the cost of the two coals and the saving that resulted from the use of Red Lodge; it will be observed that in order to make the comparison complete, freight on the Red Lodge coal from Red Lodge to Billings has been added, at five mills per ton per mile:

Red Lodge coal used by Northern Pacific Ry. Co. in year 1907	367,794 tons	
Price charged N. P. Ry. Co.	$2.00 per ton	
Freight Red Lodge to Billings, 59 miles at 5 mills	.29 per ton	
Cost at Billings	$2.29 per ton	
Cheapest available substitute, Sheridan, Wyoming:		
Price paid in 1907 for coal purchased at Sheridan, including freight to Billings	$2.67 per ton	
Saving from using Red Lodge	.38 per ton	
Total saving from using Red Lodge	$29,523.72	

CHESTNUT, MONTANA.

Capacity of mines		500 tons per day
Estimated quantity of reclaimable coal owned	5,000,000 tons	
Output for year 1907	60,154 tons	
Used by N. P. Ry. Co. in year 1907	59,439 tons	
Price charged N. P. Ry. Co.		$2.00 per ton

This coal is used in the district between Chestnut and Helena and Butte. Being a non-sparking coal, it is of special value for use in switch engines working in cities, and is used largely on our switch engines at Butte for that reason. The Sheridan, Wyoming, coal, being a sparking coal, could not be substituted, and the cheapest available substitute is the Rock Springs, Wyoming, coal, which costs $5.00 per ton f. o. b. Butte. The following comparison is on the basis of substituting Rock Springs, and in order to make comparison complete, freight on the Chestnut coal from Chestnut to Butte has been added at its estimated actual cost five mills per ton per mile.

Chestnut coal used by the Northern Pacific Railway Company in the year 1907		59,439 tons
Price charged N. P. Ry. Co.		$2.00 per ton
Freight Chestnut to Butte, 105 miles at 5 mills		.52 per ton
Cost at Butte		$2.52 per ton
Cheapest available substitute, Rock Springs, Wyoming, costing at Butte, including freight		$5.00 per ton
Saving from using Chestnut		$2.48 per ton
Total saving from using Chestnut		$147,408.72

ROSLYN, WASHINGTON.

Capacity of mines		5,000 tons per day
Estimated quantity of reclaimable coal owned	46,180,000 tons	
Output for year 1907	1,449,363 tons	
Used by N. P. Ry. Co. in year 1907	1,245,984 tons	
Price charged N. P. Ry. Co.		$2.00 per ton

This coal is used for the entire distance between Helena and Butte on the east and Lester, Washington, at the foot of the mountain grade on the west side of the Cascade Mountains, on the west, also on the passenger trains between Portland, Oregon, and Lester. Roslyn is the only workable coal deposit that has been discovered along the line of the Northern Pacific between the Cascade Mountains and the Belt Range, Montana. The only possible substitutions are the coals of Western Washington, Wyoming, and the Crows Nest district in Canada. But the Western Washington coals are insufficient to supply the local consumption, as evidenced by the imports of foreign coal to Puget Sound ports and Portland, Oregon, therefore that coal is not available as a substitute. Of the two remaining possible substitutes, the Crows Nest coal is the cheapest, costing $2.15 per ton f. o. b. at mines, freight to Spokane $3.00, duty 60 cents, a total of $5.75 per ton at Spokane; the Wyoming coal costs $6.20 per ton at Spokane. It is assumed, however that on such a quantity as the Northern Pacific would necessarily purchase a reduction in the freight rate of $1.00 on the Crows Nest coal could be obtained, reducing the cost to $4.75 at Spokane, and on this basis the comparison which follows is made, and to place the Roslyn coal on a parity therewith an estimated freight haul of 150 miles has been added, at five mills per ton per mile.

Roslyn coal used by Northern Pacific Railway Company in the year 1907....	1,245,984 tons
Price charged N. P. Ry. Co.....	$2.00 per ton
Freight, 150 miles, at 5 mills per ton, per mile	.75 per ton
Cost of Roslyn coal on parity with Crows Nest coal purchased at Spokane.....	$2.75 per ton
Cheapest available substitution, Crows Nest coal, costing, f. o. b. Spokane, including duty and freight.....	$4.75
Saving from use of Roslyn coal.....	$2.00
Total saving from use of Roslyn coal....	$2,491,968.00

RAVENSDALE AND MELMONT, WASHINGTON.

Capacity of mines, per day.....	1,500 tons
Estimated quantity of reclaimable coal owned	20,492,000 tons
Output for year 1907	282,715 tons
Used by N. P. Ry. Co. in year 1907.....	241,154 tons
Price charged N. P. Ry. Co.....	$2.00 per ton

These coals are used on the entire Northern Pacific system west of Lester, Washington, excepting that Roslyn coal is used on passenger trains to some extent. The cheapest available sources of supply which could be substituted are the different mines in King County and Pierce County, Washington. The company being unable to procure a sufficient supply for its requirements from its own mines at Ravensdale and Melmont, purchased last year from the mines in the counties named 100,905 tons, at an average cost of $2.42 per ton f. o. b. at the mines. The mines from which the purchases were made and the company's mines are so located that they are on a parity as to economy of point of delivery, therefore no freight charges enter into the comparison, which follows:

Ravensdale and Melmont, coals used by Northern Pacific Railway Company in the year 1907	241,154 tons
Price charged N. P. Ry. Co.	$2.00 per ton
Cheapest available substitution, King County and Pierce County mines, cost	$2.42 per ton
Saving from using Ravensdale and Melmont	$0.42 per ton
Total saving from use of Ravensdale and Melmont	$101,284.68

SAVING SUMMARIZED.

Red Lodge,	$29,523.52
Chestnut	147,408.72
Roslyn	2,491,968.00
Ravensdale & Melmont	101,284.68
Total	$2,770,184.92

Disposition of output of Northwestern Improvement Company mines in year 1907.

Used by Northern Pacific Railway Company	1,914,371 tons	85 per cent
Commercial sales	326,629 tons	15 per cent
Totals	2,241,000 tons	100 per cent

Correct: Thomas Cooper.
Land Commissioner Northern Pacific Railway Co. and Second Vice President Northwestern Improvement Company.
St. Paul, Minn. June 1st, 1908.

COMPLAINANT'S EXHIBIT 12. COOPER. REVISED. (N. P.)

Statement Comparing Valuation of Right of Way and other Operating Property of the Northern Pacific Railway Company in Minnesota, as reported by said Company to the Railroad Commission of Minnesota, with the estimated cost of purchasing said Property as testified to by Thomas Cooper in "Exhibit 9 Cooper" Minnesota Rate Case.

ITEM	Valuation for Railroad Commission		Added for Property since acquired	Increase in difference between Market Value and Value for Railway Purposes	Cost of purchasing as shown upon "Exhibit 9 Cooper."
	Market Value	Value for Railway Purposes			
West Duluth to White Bear	$163,746.95	$481,870.05			$481,870.05
Fond du Lac Branch	33,736.40	101,209.20			101,209.20
Carlton Yards	2,357.75	7,073.25			7,073.25
Cloquet Branch	9,673.70	29,021.10			29,021.10
Miller Branch	2,137.10	6,411.30			6,411.30
Grantsburg Branch	6,242.80	9,731.10			9,731.10
Taylors Falls Branch	27,858.00	83,574.00			83,574.00
Stillwater Branch	124,469.70	263,003.70			263,003.70
State Line to Staples	551,011.20	1,009,180.70			1,009,180.70
White Bear to St. Paul	81,002.50	156,267.50			156,267.50
Minneapolis-White Bear Branch	25,282.50	75,847.50			75,847.50
Northtown Junction to Staples	174,027.25	400,686.25			400,686.25
Brainerd to Little Falls	12,261.75	36,785.25			36,785.25
Little Falls to Morris	73,532.60	217,426.80			217,426.80
Staples to Moorhead	436,620.70	1,231,961.30			1,231,961.30
Fergus Falls Branch	94,149.35	269,728.65			269,728.65
Red River Branch	154,423.25	457,272.95			457,272.95
Red Lake Falls Branch	32,994.80	98,984.40			98,984.40
Keystone Branch	2,963.20	8,889.60			8,889.60
Total excluding Twin Cities & Duluth	$2,008,491.50	$4,944,924.60			$4,944,924.60
Duluth terminals	$3,555,593.93	$4,311,563.77		$843,639.98	$5,155,203.75
St. Paul terminals	7,645,100.24	9,350,479.08	$328,725.69	219,884.57	9,907,889.34
Minneapolis terminals	4,027,616.17	4,871,252.96	227,737.26	193,829.00	5,293,819.22
Totals Twin Cities and Duluth	$15,228,310.34	$18,542,295.81	$556,462.95	$1,257,153.55	$20,355,912.31
Grand totals	$17,236,801.84	$23,487,220.41	$556,462.95	$1,257,153.55	$25,300,836.91

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COMPLAINANT'S EXHIBIT 14. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

STATEMENT OF OUTSTANDING STOCK AND BONDS OF THE NORTHERN PACIFIC RAILWAY CO. APRIL 30, 1908.

Common stock	1,550,000 shares		$155,000,000.00
Subscription receipts issued for additional stock—subscribed on	929,210½ "	62½% paid	60,539,234.00
Bonds:			

	Amount Outstanding
Issued—	
(a) Prior Lien Mortgage	$106,984,500.00
(b) General Lien Mortgage	60,000,000.00
(c) St. Paul-Duluth Division Mortgage	7,902,000.00
Assumed—	
(d) St. Paul & Northern Pacific Ry. Mortgage	8,021,000.00
(e) St. Paul & Duluth R. R. First Mortgage	1,000,000.00
" " Second "	2,000,000.00
" " Consol. "	1,000,000.00
" " T. F. & L. Sup. R. R. "	210,000.00
" " Duluth Short Line "	500,000.00
(f) Washington & Columbia Riv. Ry. First Mortgage	2,620,000.00
(g) St. Paul & Duluth R. R. Car Trust Notes	19,257.66
	$190,256,757.66

(a) The Prior Lien Bonds are a first lien by direct mortgage, or through the ownership of securities, upon 5,230.75 miles of main line and branches including extensive terminal properties at the several termini on Lake Superior and Puget Sound, upon the entire Northern Pacific R. R. land grant and all the equipment of the Northern Pacific Ry. Co., exclusive of the St. Paul & Northern Pacific and St. Paul-Duluth Divisions, upon which, subject to their existing underlying mortgages, the new bonds likewise have subsisting liens.

(b) The General Lien Bonds are secured by a second mortgage upon the same property that secures the Prior Lien Bonds, and subject to the same exceptions stated.

(c) The St. Paul-Duluth Division Bonds are secured by a mortgage upon the railway and branches and other railroad property, equipment and franchises heretofore belonging to the St. Paul & Duluth R. R. Co. subject (1) to a mortgage dated July 1, 1881, executed by the St. Paul & Duluth R. R. Co. to Central Trust Company of New York as Trustee, of which there are now outstanding $1,000,000 par value. (2) a mortgage dated August 3, 1887, executed by the St. Paul & Duluth R. R. Co. to Central Trust Co. of New York as Trustee, of which there are now outstanding $2,000,000 par value. (3) a mortgage dated June 1, 1898, executed by the St. Paul & Duluth R. R. Co. to Guaranty Trust Co. of New York as Trustee, of which there are now outstanding $1,000,000 par value. (4) a mortgage dated Sept. 1, 1886, executed by the Duluth Short Line Ry. Co. to Central Trust Co. of New York as Trustee, of which there are now outstanding $500,000 par value. (5) a mortgage dated Nov. 27, 1883, executed by the Taylors Falls & Lake Superior R. R. Co. to Central Trust Co. of New York as Trustee, of which there are now outstanding $210,000 par value. (NOTE: There is an amount in the hands of the Trustee which, with interest accruing thereon, will retire these bonds at maturity.) (6) Car Trust obligations now outstanding aggregating $19,257.66, all of which will be retired in 1908.

(d) The St. Paul & Northern Pacific Railway Bonds are a first lien on railroad, land grant, real estate, franchises, structures and facilities upon 180.20 miles of road from St. Paul to Brainerd and Little Falls to Staples, Minnesota.

(e) See under (c) St. Paul-Duluth Division Mortgage.

(f) The Washington & Columbia River Railway bonds are a first lien on 168.86 miles of railway, equipment, franchises and all property formerly belonging to the Washington & Columbia River Railway Company in the States of Washington and Oregon.

(g) Car Trust Notes are a first lien on 300 box cars and 8 locomotives acquired in the purchase of the St. Paul & Duluth R. R. (See NOTE above under (c).

COMPLAINANT'S EXHIBIT 15. GRAY.

COST OF CONSTRUCTION AND EQUIPMENT OF NORTHERN PACIFIC RAILROAD AND NORTHERN PACIFIC RAILWAY, FROM SEPTEMBER 29, 1875 TO APRIL 30, 1908, AS SHOWN BY REPORTS MADE TO THE INTERSTATE COMMERCE COMMISSION TO JUNE 30, 1907. THE EXPENDITURES SINCE THAT DATE BEING ADDED FROM THE COMPANY'S BOOKS.

CONSTRUCTION	Charges to August 31, 1896, as per Report to Interstate Commerce Commission—p. 29	Construction and Improvements charged to Operating Expenses to August 31, 1896	Total to August 31, 1896	New construction and Equipment September 1, 1896 to April 30, 1908	Improvements and Betterments September 1, 1896 to April 30, 1908	Total September 1, 1896 to April 30, 1908	Grand Total
Property acquired under decree of foreclosure September 29th, 1875	$65,610,825.92	.....	$65,610,825.92	.....	.....	.....	$65,610,825.92
Construction Since:							
Engineering	2,890,566.39	37,504.62	2,928,071.01	945,192.15	.....	945,192.15	3,873,263.16
Right of way and station grounds	389,281.68	58,190.08	447,471.76	1,923,773.85	99,983.72	2,023,757.57	2,471,229.33
Real estate	380,663.37	33,229.50	413,892.87	4,435,479.03	.....	4,435,479.03	4,849,371.90
Grading	21,168,904.43	803,101.44	21,972,005.87	12,601,556.84	2,715,577.98	15,317,134.82	37,289,140.69
Tunnels	.....	.....	.....	597,458.91	137,062.85	734,521.76	734,521.76
Bridges, trestles and culverts	8,946,652.07	246,830.18	9,193,482.25	2,800,921.55	4,160,120.64	6,961,042.19	16,154,524.44
Ties	2,231,149.42	11,484.08	2,242,633.50	1,314,476.66	.....	1,314,476.66	3,557,110.16
Rails	12,063,195.01	133,562.82	12,196,757.83	2,848,087.37	1,802,167.12	4,650,254.49	16,847,012.32
Track fastenings	.....	.....	.....	680,289.44	.....	680,289.44	680,289.44
Frogs and switches	.....	.....	.....	95,398.76	.....	95,398.76	95,398.76
Ballast, bank widening, etc.	.....	.....	.....	542,381.64	1,453,921.04	1,996,302.68	1,996,302.68
Track laying and surfacing	.....	.....	.....	1,056,762.61	.....	1,056,762.61	1,056,762.61
Fencing right of way	322,701.02	39,559.85	362,260.87	142,046.56	325,706.68	467,753.24	830,014.11
Crossings, cattle guards and signs	.....	.....	.....	67,201.94	271,640.73	338,842.67	338,842.67
Interlocking or signal apparatus	.....	.....	.....	9,337.85	151,990.94	161,328.79	161,328.79
Telegraph lines	298,594.36	9,902.64	308,497.00	61,165.59	397,629.58	458,795.17	767,292.17
Station buildings and fixtures	6,302,330.29	224,597.95	6,526,928.24	372,353.89	1,282,367.36	1,654,751.25	8,181,679.49
Shops, roundhouses and turntables, machinery and tools	354,926.01	.....	354,926.01	458,816.30	2,945,384.34	3,404,200.64	3,759,126.65
Water and fuel stations	.....	.....	.....	232,789.17	1,108,706.37	1,341,495.54	1,341,495.54
Docks and wharves	639,924.96	71,257.09	711,182.05	15,835.59	956,670.89	972,506.48	1,683,688.53
Miscellaneous structures	4,222,449.70	11,575.55	4,210,874.15	250,473.87	639,253.59	889,727.46	5,100,601.61
Legal expenses	.....	.....	.....	.....	.....	.....	.....
Interest and discount	22,104,625.41	.....	22,104,625.41	.....	.....	.....	22,104,625.41
Sidings, yards and terminals	1,973,833.53	430,205.15	2,404,038.68	2,790,616.28	6,775,013.15	9,565,629.43	11,969,668.11
Purchase of constructed road	64,314,745.15	.....	64,314,745.15	26,835,382.39	.....	26,835,382.39	91,150,127.54
Other items	2,750,563.79	8,780.67	2,759,344.46	1,207,237.12	70,109.47	1,277,346.59	4,036,691.05
Railroad property disposed of	.....	.....	.....	1,295,688.43	.....	1,295,688.43	1,295,688.43
Treasury securities—included in mileage	.....	.....	.....	4,311,179.94	.....	4,311,179.94	*4,311,179.94
Total construction	$216,965,932.51	$2,096,630.52	$219,062,563.03	$65,300,556.87	$25,293,306.45	$90,593,863.32	$309,656,426.35
Equipment:							
Locomotives	6,131,398.24	.....	6,131,398.24	11,423,722.97	655,354.15	12,079,077.12	18,210,475.36
Passenger cars	1,104,611.83	.....	1,104,611.83	1,691,474.14	313,009.30	2,004,483.44	3,109,095.27
Sleeping, parlor and dining cars	791,205.08	.....	791,205.08	1,270,083.05	34,051.71	1,304,134.76	2,095,339.84
Baggage, express and postal cars	339,073.31	.....	339,073.31	381,561.43	79,782.04	461,343.47	800,416.78
Combination cars	91,855.00	.....	91,855.00	158,500.00	15,235.02	173,735.02	265,590.02
Freight cars	8,257,289.30	.....	8,257,289.30	19,976,780.87	847,098.20	20,823,879.07	29,081,168.37
Other cars of all classes	840,535.26	.....	840,535.26	660,155.91	64,065.57	724,221.48	1,564,756.74
Floating equipment	450,453.96	26,400.00	476,853.96	20,248.14	.....	20,248.14	497,102.10
Trust equipment	3,032,526.48	.....	3,032,526.48	.....	.....	.....	3,032,526.48
Discount and commission	939,858.42	.....	939,858.42	.....	.....	.....	939,858.42
Total equipment	$21,978,806.88	$26,400.00	$22,005,206.88	$35,582,526.51	$2,008,595.99	$37,591,122.50	$59,596,329.38
Grand total—construction, equipment, etc.	238,944,739.39	2,123,030.52	241,067,769.91	100,883,083.38	27,301,902.44	128,184,985.82	309,252,755.73
Miles of road owned	.....	.....	4,499.45	.....	.....	.....	16,293.64
Cost per mile	.....	.....	53,577.16	.....	.....	.....	58,670.76

*Washington Central Ry. Bonds $1,853,000.00 (includes $1,538,000 held by public)
" Stock 221,279.94
Clearwater Short Line Ry. " 2,127,200.00
Lake Sup. T. & T. Ry. Addl. " 56,100.00 } Balance of stock held
St. Paul Union Depot " 53,600.00 } included in first period.
$4,311,179.94

†This includes mileage of Central Washington Ry. (now Washington Central Ry.) as cost of line is included under "Treasury Securities"—$4,311,179.94.

NOTE: Owing to change in Construction Classification of Interstate Commerce Commission in 1898, the total cost under each item of present classification cannot be given.

COMPLAINANT'S EXHIBIT 16. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

SOURCES FROM WHICH FUNDS WERE OBTAINED FOR ADDITIONS TO PROPERTY, FROM SEPTEMBER 1, 1896 TO APRIL 30, 1908.

From proceeds of Prior Lien Bonds issued	$19,588,560.99
From proceeds of General Lien Bonds issued	2,920,000.00
From proceeds of St. Paul-Duluth Division Bonds issued	5,398,227.78
From St. Paul & Duluth R. R. Bonds assumed	4,906,500.00
From St. Paul & Duluth R. R. Car Trust Notes assumed	358,929.73
From Minneapolis & Duluth R. R. Bonds assumed	280,000.00
From Washington Central Ry. Bonds in hands of public, the interest on which is guaranteed by Northern Pacific Railway Company	1,538,000.00
From Net Land Receipts	25,026,337.58
From subscriptions to New Capital Stock	60,539,634.99
From interest on funds in hands of Trustee	123,784.93
From amount provided under plan of reorganization	5,000,000.00
From Treasury Cash and Current Assets	2,505,009.82
Total	$128,184,985.82

COMPLAINANT'S EXHIBIT 17. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

STATEMENT OF THE AVERAGE MARKET VALUE OF THE BONDS AND STOCK OF THE NORTHERN PACIFIC RAILWAY COMPANY FOR A PERIOD OF FIVE YEARS ENDING APRIL 30, 1908.

Common Stock:

From Sept. 1, 1901, until April, 1905, no stock was sold on the market.

From April, 1905, to April 30, 1908, the average market price per share was $170.887.

Total market value of stock outstanding:

1,550,000 shares @ $170.887	$264,874,850.00
929,210½ shares new stock (62½% paid in) @ $113.00	65,625,470.00
	$330,500,320.00

Bonds:	Market value per $1.00 of par value.	Market value of bonds outstanding April 30/08.
Prior Lien	1.02⅞	$110,060,304.37
General Lien	.73⅜	44,025,000.00
St. Paul-Duluth Division	.98⅝	7,793,347.50
St. Paul & Northern Pacific Ry	1.22⅝	9,835,751.25
St. Paul & Duluth R. R. First Mortgage	1.14¼	1,141,250.00
" Second "	1.07⅝	2,152,500.00
" Consol "	.98⅝	986,250.00
" T. F. & L. Sup. R. R., No quotation	.....	210,000.00
" Duluth Short Line R. R., No quotation	.....	500,000.00
" Wash. & Col. Riv. R. R., No quotation	.....	2,620,000.00
		$179,324,403.12

COMPLAINANT'S EXHIBIT 18. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

STATEMENT SHOWING STOCK OUTSTANDING AND DIVIDENDS PAID EACH YEAR FROM 1880 TO APRIL 30, 1908.

Year	Stock Outstanding	Dividends Amount	Per Cent
1880	$92,412,645.12	.....	.....
1881	91,312,588.95	.....	.....
1882	90,909,132.20	*4,640,821.20	5.11
1883	90,749,463.90	.....	.....
1884	88,807,062.40	.....	.....
1885	87,610,584.32	.....	.....
1886	87,058,310.99	.....	.....
1887	86,786,199.17	.....	.....
1888	86,488,618.17	.....	.....
1889	86,172,577.91	.....	.....
1890	85,983,323.80	1,112,732.00	1.29
1891	85,658,612.45	1,472,466.00	1.72
1892	85,564,250.05	1,098,053.00	1.28
1893	85,140,151.42	.....	.....
1894	85,026,428.23	.....	.....
1895	84,250,146.86	.....	.....
1896	84,238,346.86	.....	.....
1897	155,000,000.00	.....	.....
1898	155,000,000.00	3,000,000.00	1.94
1899	155,000,000.00	4,600,000.00	2.97
1900	155,000,000.00	5,400,000.00	3.48
1901	155,000,000.00	6,200,000.00	4.00
1902	155,000,000.00	8,499,946.00	5.48
1903	155,000,000.00	10,074,943.50	6.50
1904	155,000,000.00	10,849,989.25	7.00
1905	155,000,000.00	10,850,000.00	7.00
1906	155,000,000.00	10,850,000.00	7.00
1907	155,000,000.00	10,850,000.00	7.00
1908 to April 30th	155,000,000.00	8,137,500.00	5.25
Average stock outstanding	$114,169,010.00	$97,636,450.95	.....
Average rate of dividend per year for 28⅚ years	.....	.....	2.966%

*Dividend certificates issued in payment

COMPLAINANT'S EXHIBIT 19. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

STATEMENT OF AVERAGE OR EQUATED BONDS OUTSTANDING FOR THE FISCAL YEARS 1880 TO 1896 INCLUSIVE (17 YEARS), AND INTEREST ON SAME

Fiscal Year	Bonds Outstanding	Interest
1880	$2,658,954.33	$159,537.26
1881	13,895,661.33	833,739.68
1882	14,033,885.14	842,033.11
1883	22,484,369.33	1,349,062.16
1884	58,917,304.66	3,535,038.28
1885	68,732,483.00	4,123,948.98
1886	72,318,240.83	4,339,094.45
1887	74,275,594.33	4,456,535.66
1888	78,399,257.66	4,703,955.46
1889	81,963,879.50	4,917,832.77
1890	88,972,580.47	5,319,006.23
1891	111,929,810.73	6,457,074.28
1892	121,058,222.96	6,901,956.07
1893	125,048,050.90	7,092,159.72
1894	134,021,981.17	7,618,759.90
1895	134,393,555.50	7,638,413.33
1896	133,429,250.00	7,580,555.00
	$1,336,533,081.84	$77,868,702.34
17 years average	78,619,593.04	4,580,511.90
Average rate per annum accrued		5.826%
Defaulted interest		$12,807,055.83
Interest paid		65,061,646.51
Average rate per annum paid		4.867%

		Interest and Dividends
Average bonds, as above	$78,619,593.04	$4,580,511.90
Average stock, same period (0.56%)	87,304,025.22	489,651.30
	$165,923,618.26	$5,070,163.20
Average accrued interest on bonds and dividends on stock		3.06%
Average interest paid on bonds and dividends on stock		2.60%

COMPLAINANT'S EXHIBIT 20. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY

STATEMENT OF INTEREST ON MORTGAGE DEBT, AND DIVIDENDS ON STOCK, FROM SEPTEMBER 1, 1896 TO APRIL 30, 1908.

Interest on Mortgage Debt.

Year	Average Bonds	Interest Accrued	Average Rate
1897 10 months	$153,156,640.00	$5,110,248.00	3.34%
1898	155,396,916.67	6,079,160.00	3.91
1899	157,421,627.59	6,079,273.33	3.86
1900	154,729,500.00	5,864,950.00	3.79
1901	168,103,875.00	6,395,681.25	3.80
1902	174,090,666.67	6,624,865.83	3.81
1903	182,069,666.42	6,904,696.66	3.79
1904	182,621,500.84	6,922,930.15	3.79
1905	183,261,166.75	6,947,983.33	3.79
1906	184,208,000.00	6,986,140.00	3.79
1907	185,037,214.48	7,015,995.01	3.79
1908 to April 30	188,090,500.00	5,936,016.67	3.16
Total	$2,068,187,274.42	$76,867,940.23	
Average 11⅔ years	177,283,325.42	6,589,057.10	3.72%

Dividends Paid.

Year	Stock	Amount	Average Rate
1897	$155,000,000.00	.....	.....
1898	155,000,000.00	$3,000,000.00	1.94%
1899	155,000,000.00	4,600,000.00	2.97
1900	155,000,000.00	5,400,000.00	3.48
1901	155,000,000.00	6,200,000.00	4.00
1902	155,000,000.00	8,499,946.00	5.48
1903	155,000,000.00	10,074,943.50	6.50
1904	155,000,000.00	10,849,989.25	7.00
1905	155,000,000.00	10,850,000.00	7.00
1906	155,000,000.00	10,850,000.00	7.00
1907	155,000,000.00	10,850,000.00	7.00
1908 to April 30	155,000,000.00	8,137,500.00	5.25
Total		$89,312,378.75	57.62%
Average—11⅔ years			4.94%
Interest and dividends—average 11⅔ years			4.29%

COMPLAINANT'S EXHIBIT 21. STRYKER.

VALUATION OF RAILROAD PROPERTY AT DULUTH.

Northern Pacific Railway Company's Property.

Chester Creek to Fifth Avenue East	$2,500.00 per acre.
1,311 lineal feet on Michigan Street at	100.00 " front ft.
388 " " " Lake Shore at	15.00 " "
First Avenue East to Lake Ave	98,800.00 for parcel.
Lake Ave. to Fifth Ave. W	809,000.00 " "
Docks 5 and 6	125,000.00 " "
Northwestern Fuel Dock	300,000.00 " "
Frontage on West side Fifth Ave. W., 110 front feet	500.00 per front ft.
Corner Michigan St. and Sixth Ave. W., 75 feet frontage	200.00 " "
Dock between Commerce Slip and Sixth Ave. W	250,000.00 for parcel.
Dock No. 4	225,000.00 " "
Dock No. 3	175,000.00 " "
Right of way East of 13th Ave. West	12,500.00 per acre.
Rice's Point property	2,500.00 " "
Blue Print No. 3	2,000.00 " "
" " " 4	1,750.00 " "
" " " 5	1,500.00 " "
" " " 6	1,250.00 " "
" " " 7	1,250.00 " "
" " " 8	1,250.00 " "
" " " 9	1,000.00 " "

Union Depot Company's Property.

Depot Block	275,000.00 for parcel.
Right of Way	12,500.00 per acre.

St. Paul, Dec. 27th, 1906.

J. D. STRYKER,
L. MENDENHALL,
E. C. LITTLE,
Appraisers.

COMPLAINANT'S EXHIBIT 22. ELWOOD.

Valuation, made by Lester B. Elwood, F. E. Barney and J. Arthur Ridgeway, on Real Estate owned by Northern Pacific Railway Company in Minneapolis, Minn.

PLAT NO. 1.

Between Marshall, University Avenue, Oak Street and 26th Ave. S. E., also shown on Plat No. 3	$0.30 per square foot
Between 26th Avenue S. E. and City Limits	.25 per square foot

PLAT NO. 2.

From 20th Avenue South to East line of Hancock and Rice Addition	.35 per square foot
From East line Hancock and Rice Addition to River	.15 per square foot
From River to Oak Street	.30 per square foot

PLAT NO. 3.

Between Marshall, University Avenue, Oak Street and 26th Avenue S. E. (also included in Plat No. 1)	.30 per square foot

PLAT NO. 4.

From "E" Street to Como Avenue	.12 per square foot
From Como Avenue to St. Paul City Limits	.10 per square foot

PLAT NO. 5.

From Central Avenue to Fillmore Street	.35 per square foot
From Fillmore Street to Johnson Street	.18 per square foot
Between Johnson Street and Buchanan Street, Summer and Broadway	.15 per square foot
Between Johnson, Broadway, "E" Street and Winter	.10 per square foot
From Broadway N. E. to "H" Street	.07½ per square foot

PLAT NO. 6.

From Broadway to Fillmore	.20 per square foot
From Fillmore to Polk Street, as now laid out	.25 per square foot
From Polk Street, as now laid out, to Van Buren (extended)	.30 per square foot
From Van Buren (extended) to 19th Avenue N. E.	.25 per square foot
From 19th Avenue N. E. to 25th Avenue N. E.	.15 per square foot

PLAT NO. 7.

As shown on said Plat between Main and Madison Streets	.20 per square foot

PLAT NO. 8.

From 3rd Avenue North (West side of River) to Plymouth Avenue	3.00 per square foot
From Plymouth Avenue to 20th Avenue North	1.00 per square foot
From 20th Avenue North to 24th Avenue North	.45 per square foot
From 24th Avenue North to 28th Avenue North	.30 per square foot
From 28th Avenue North to 32nd Avenue North	.20 per square foot
From 8th Avenue N. E. to 14th Avenue N. E.	.30 per square foot
From 14th Avenue N. E. to 19th Avenue N. E.	.20 per square foot
From 19th Avenue N. E. to 25th Avenue N. E.	.15 per square foot

PLAT NO. 9.

From 25th Avenue N. E. to 27th Avenue N. E. between the River and University Avenue	.10 per square foot
From 25th Avenue N. E. to 27th Avenue N. E. between University Avenue and Washington Street	.10 per square foot
From 27th Avenue N. E. to 31st Avenue N. E.	.07½ per square foot
From 31st Avenue N. E. to City Limits on the North	.05 per square foot

LESTER B. ELWOOD,
J. ARTHUR RIDGEWAY,
FRED E. BARNEY.

CHARTS

TOO LARGE FOR FILMING

COMPLAINANT'S EXHIBIT 23. WATSON.

C. E. OTIS, Master.

Valuations made by O. L. Taylor, John J. Watson and W. C. Read, October 1st, 1906, on property owned by Northern Pacific Railway Company in Ramsey County, Minn.

From Broadway to Pine Street	$8.00 per square foot
From Pine Street to Willius Street	4.00 per square foot
From Willius Street to Sixth Street viaduct	2.50 per square foot
From Sixth Street viaduct to Eighth Street	2.50 per square foot
From Commercial Street to Seventh Street	2.00 per square foot
From Seventh Street to North Street	1.00 per square foot
From North Street to Minnehaha Street	.25 per square foot
From Eighth Street to Lafayette Avenue	1.00 per square foot
From Lafayette Avenue to Pennsylvania Avenue	.50 per square foot
From Pennsylvania Avenue to Maryland Street	.25 per square foot
All property in Bass Garden Lots north of Maryland Street and to Cortland Street	.10 per square foot
Cortland Street to Rice Street	.05 per square foot
Rice Street to Dale Street	.05 per square foot
From Dale Street to Lexington Avenue	.08 per square foot
All property in Como shops grounds	.10 per square foot
Snelling Avenue to Everett Ct	.08 per square foot
From Transfer to city limits	.25 per square foot
From Prior Avenue to Folwell and all north of Great Northern tracks	.15 per square foot
From Minnehaha Street to Arcade Street	.12½ per square ft.
From Arcade Street to Earl Street	.15 per square foot
From Earl Street to Rose Street	.10 per square foot
From Maryland Avenue to Minneapolis Avenue	.04 per square foot

COMPLAINANT'S EXHIBIT 25. BERRY.

Estimated cost to reproduce the Northern Pacific Railroad based on its condition and Mileage of June 30th, 1906, as near as it is possible to get it from Inspection of Line made in August, 1908.

	Miles
Main lines	5,785
Sidings	1,910
Total	7,695

Sidings 33 per cent of main lines.

This estimate is based on a cost per mile including all items entering into its construction, except value of land, ballast, important bridges, buildings and improvements at the larger terminals.

CONSTRUCTION OF ROAD

No. of Miles	Class	Price per mile	Amount	
515	A	$11,696	$6,024,440	
440	AB	12,914	5,682,160	
881	B	14,133	12,451,173	
427	BC	17,261	7,370,447	
79	C	20,388	1,610,652	
223	D	16,507	3,681,061	
424	DE	18,544	7,862,656	
1	DI	34,213	34,213	
472	E	20,582	9,714,704	
442	EF	23,200	10,304,400	
2	EG	27,596	55,192	
2	EI	36,250	72,500	
439	F	25,819	11,334,541	
284	FG	30,214	8,580,776	
1	FI	38,869	38,869	
318	G	34,610	11,005,980	
92	GH	40,045	3,684,140	
4	GI	43,264	173,056	
216	H	45,480	9,823,680	
21	HI	48,200	1,012,200	
1	HJ	57,101	57,101	
142	I	51,919	7,372,498	
33	IJ	60,321	1,990,593	
65	J	68,722	4,466,930	
2	JK	76,955	153,910	
41	K	85,188	3,492,708	
2	KL	100,578	201,156	
43	L	115,967	4,986,581	
	Double Track			
14	M	26,316	$368,424	
38	MN	29,196	1,109,448	
20	N	32,076	641,520	
9	NO	35,536	319,824	
22	O	38,996	857,912	
6	OP	41,628	249,768	
21	P	44,261	929,481	
16	PQ	61,296	980,736	
12	Q	78,331	939,972	
5	R	55,143	275,715	
1	RS	69,705	69,705	
6	S	84,267	505,602	
1	ST	98,086	98,086	
2	T	111,905	223,810	
5,785				$140,808,320

Brought forward,	$140,808,320.00

TUNNELS

6,214.6 lin. ft. single track timber lined @ $132	$820,327.20	
20,613.2 lin. ft. single track masonry lined @ $171 ..	3,524,857.20	
587.0 lin. ft. double track masonry lined @ $342..	200,754.00	$4,545,938.40

BALLASTING—Exclusive of Terminals

Number of Miles		Price per Mile		
Main Line	Branch Line			
2,756		2250	$6,201,000.00	
	1,782	1125	2,004,750.00	
Sidings				
	1,292	1125	$1,453,500.00	$9,659,250.00
			Forwarded	$155,013,508.40

SOME OF THE LARGE AND IMPORTANT BRIDGES

No. of Bridge	Location	Length	No. of Spans	Description	Value
.....	Duluth.....	714′	3	Over St Louis Bay	$724,506
119	Brainerd.....	577′	5	" Miss. River...	72,211
140	L. S. Div.....	308′	3	" Crow Wing R.	27,750
7–R	Over G N Ry St Paul.....	243′	2	.....	43,192
11	.....	1582′	28	Lower Miss. River.	278,410
13–A	Dble track....	820′	5	Mississippi R.....	219,340
105	Staples to St Paul.....	512′	5	Mississippi River	47,850
106	Little Falls to Brainerd..	320′	2	Mississippi River	61,460
255–A	At Fargo.....	190′	1	Red River.....	52,580
95	Grand Forks..	411′	3	Red River.....	34,418
196	Mandan.....	1469′	5	Missouri River....	1,135,637
1	Mandan to Glendive.....	204′	1	Hearth River.....	23,560
4	"	204′	1	" "	34,620
248	"	410′	4	Little Mo. River ..	29,440
35	Glendive to Billings.....	175′	2	Cedar River.....	14,170
52	"	216′	3	Cabin River.....	17,240
107	"	223′	2	O'Fallon River....	19,870
157	"	460′	4	Powder River.....	40,890
239	"	316′	2	Tongue River.....	30,760
473	"	475′	3	Big Horn River....	41,280
565	"	488′	3	Yellowstone River.	57,050
78	Billings to Helena.....	532′	4	" "	66,450
112	"	155′	2	Big Boulder River.	18,400
150	"	374′	3	Yellowstone River.	46,250
200	"	298′	4	West Gallatin R ..	29,210
211	"	312′	4	Gallatin River.....	37,090
259	"	491′	4	Missouri River.....	75,830
7	Logan to Butte.....	163′	1	Madison River.....	26,860
15	"	312′	4	Jefferson River....	37,970
50	"	580′	13	Spire Rock Creek..	40,150
54	"	500′	12	Big Pipestone C'k.	34,680
81	"	601′	13	Viaduct.....	41,950

No. of Bridge	Location	Length	No. of Spans	Description	Value
3	Rocky Ford Branch.....	469′	3	Yellowstone River.	$59,310
27	Helena to Trout Creek	580′	15	Greenhorn Gulch...	41,608
29	"	494′	13	Austin " ..	36,092
87	"	145′	2	Hellgate River....	14,440
98	"	184′	2	" "	18,680
120	"	202′	3	" "	12,760
139	"	234′	3	" "	25,210
170	"	331′	5	Big Blackfoot R...	36,900
201	"	925′	31	O'Keefe Viaduct...	102,510
206	"	797′	13	Marent " ..	232,265
253	"	734′	4	Flathead River....	101,090
280	"	429′	3	Clarks Fork River	284,660
1	Bitter Root Branch.....	408′	3	Missoula River....	17,760
2	"	312′	2	Bitter Root River	18,500
65	"	312′	2	" " "	17,000
68	"	260′	2	" " "	12,900
15	Coeur d'Alene Line.....	500′	4	Missoula River....	25,753
300	Trout Creek to Hope.....	995′	6	Clarks Fork River	128,950
13.1	Hope to Wallula.....	4769′	85	L Pend D'O Reille	336,119
29	"	1169′	29	Granite Gulch.....	123,548
47	"	331′	3	Spokane River.....	39,120
245	"	1580′	7	Snake River.....	1,195,644
1	Pasco.....	2667′	13	Columbia River....	667,289
89	Pasco to Ellensburg...	257′	2	Natches River.....	38,680
94.1	" ...	410′	4	Yakima River.....	39,360
97	" ...	250′	1	"	47,560
104	" ...	308′	3	"	46,480
202	Lewiston Br...	976′	6	Clearwater River...	60,250
5	Clearwater Short Line...	390′	3	N F Clearwater R.	22,390
13	" ..	537′	3	Clearwater River...	42,400
129	Ellensburg to Tacoma.....	300′	2	Yakima River.....	39,040
135	"	200′	1	"	21,270
146	"	150′	1	Cle Ellum River...	19,280
148	"	200′	1	Yakima River.....	26,680
199	"	166′	3	Sunday Creek.....	15,810
201	"	122′	1	Green River.....	18,180
206	"	134′	1	"	16,470
209	"	153′	1	"	19,530
210	"	241′	3	"	21,250
211	"	246′	3	"	20,960
212	"	272′	3	"	30,380
213	"	246′	3	"	22,170
225	"	345′	2	White River.....	78,490
230	"	155′	3	Sou. Prairie River.	14,680
234	"	163′	1	Carbon River.....	18,310
243	"	153′	1	S F Puyallup R..	19,790
254	"	464′	4	At Tacoma.....	118,992
1	Palmer Cut off	251′	3	Green River.....	33,580
4	"	282′	3	"	28,310
6	"	151′	5	"	12,540
7	"	181′	6	O.ChannelWhite R.	10,590
9	"	439′	4	.....	38,290
12	Tacoma to Portland.....	390′	4	Nisqually River....	54,120

No. of Bridge	Location	Length	No. of Spans	Description	Value
47	Tacoma to Portland....	133'	1	Shookum Chuck R	$16,390
	"	207'	5	Hannaford Creek..	15,400
51	"	102'	1	Newaukum River..	13,120
59	"	122'	1	Olequa Creek.....	10,250
90	"	122'	1	"	10,620
93	"	326'	2	Cowlits River.....	27,990
95	"	185'	1	Toutle River.....	26,340
101	"	158'	1	Coweman River....	20,440
133	"	344'	4	Kalama River.....	27,275
142	"	103'	1	Milton Creek.....	9,650
159	"	125'	3	.....	9,230
165					
2	Meeker Jct. to Seattle....	306'	2	Puyallup River....	54,312
	"	207'	4	Stuck River.....	61,708
11	"	180'	1	D T White River..	44,810
17	"	185'	3	D T Black River..	47,660
5					
6	Seattle Belt Line.....	150'	1	Cedar River.....	16,510
6	Lake View to Gate City....	166'	1	Nisqually River....	24,690
	"	124'	1	Deschutes River...	11,620
13					
55	Aberdeen Jct. to Oconta ...	743'	4	Chehalis River.....	92,210
	"	153'	1	Johns River.....	8,270
66		380'	3	Yakima River.....	23,380
5	Sunnyside Br.				
2	Centralia to Aberdeen Jct	150'	1	Shookum Chuck R.	8,350
	"	150'	1	Black River.....	8,470
13	"	100'	1	Clocunllum River..	6,200
24	"	200'	1	Satsop River.....	20,060
29	"	270'	2	Wyenoochee River	16,450
42	"				
2	Aberdeen Jct to Moclips...	288'	1	Wishkah River....	29,080
	" ...	288'	1	Hoquiam River....	43,850
7	" ...	200'	1	Humtulip River...	10,840
11					
1	Chehalis to Sou. Bend...	110'	1	Newaukum River..	13,450
	" ...	300'	2	Chehalis River.....	31,846
2	" ...	150'	1	"	17,197
5	" ...	150'	1	"	9,874
7	" ...	150'	1	"	10,220
13	" ...	150'	1	"	10,070
16	" ...	100'	1	Willapa River.....	5,300
27	" ...	130'	1	"	6,990
31	" ...	150'	1	"	9,709
33	" ...	200'	1	S. F. Willapa River	27,305
38	" ...	144'	1	Lewis River.....	13,600
7	Yacolt Branch	828'	5	"	120,360
4	Columbia B...				
21	Woodinville to Sumas.....	458'	3	Snohomish River..	48,030
	"	500'	7	Stillaguamish R...	65,270
38	"	645'	3	Skagit River.....	65,359
50	"	202'	1	S. F. Nooksack R..	16,490
63	"	428'	3	N. F. Nooksack R..	24,980
71	"	200'	1	Ebey Slough.....	13,620
4	Everett Br....	392'	2	Snohomish River..	31,610
7	" ...	280'	2	Stillaguamish R...	14,900
1	Darrington Br	280'	2	" ...	14,900
4	"	100'	1	Deer Creek.....	5,590
6	"	238'	2	Stillaguamish R...	12,150
7	"	100'	1	Boulder Creek.....	5,130
9	"	100'	1	Squire Creek.....	5,130
12	"				

Brought forward from page 2, $155,013,508.40

No. of Bridge	Location	Length	No. of Spans	Description	Value	
14	Monte Cristo Branch.....	150′	1	Stillaguamish R...	$8,335	
18	"	116′	1	" ...	12,888	
33	"	126′	1	" ...	8,869	
	Total.....	122	585		$9,349,301	
	BALANCE OF THE IMPORTANT BRIDGES				2,117,404	
	Balance of all kinds of waterways, such as stone arches, cast iron pipe, vitrified pipe, ballast deck pile bridges, plain pile bridges, timber culverts, masonry box culverts, and all others not included in important bridges.....				$8,878,229	$20,344,934

Forwarded, $175,358,442.40

LARGE AND IMPORTANT TERMINALS EXCLUSIVE OF LAND AND ITEMS INCLUDED UNDER OTHER HEADINGS.

Name	Value
Duluth and Superior	$5,023,577
Saint Paul	918,502
Minneapolis	686,200
Spokane	745,743
Tacoma and Sou. Tacoma	4,059,922
Seattle	2,633,410
Butte	303,040
Everett	79,212
Bellingham	39,241
South Bend	48,057
Aberdeen and Hoquiam	121,260
St. Cloud	23,202
Stillwater	131,224
Ashland	38,532
Sauk Rapids	38,341
Crookston	23,655
Casselton	9,553
Bismarck	226,656
Mandan	329,557
White Bear	65,295
Detroit	62,932
Valley City	82,129
Bozeman	141,661
Prickly Pear Jct	94,250
Missoula	341,997
Ellensburg	297,291
Goble	19,307
Rush City	24,895
North Yakima	147,434
Billings	296,550
Forsythe	81,339
Glendive	333,494
Little Falls	144,270
Fargo	367,409
Washburn	66,626
Staples	378,421
Grand Forks	155,987
Jamestown	297,187
Brainerd	995,411

Brought forward, $175,358,442.40

Name	Value	
Dickinson	$262,134	
Carlton	104,520	
Winnipeg Jct.	78,516	
Livingston	604,567	
Logan	109,781	
Helena	384,007	
Pasco and Pasco Jct.	406,588	
Hinckley	79,200	
Trout Creek	143,909	
Laurel	59,757	
Gladstone	19,734	
Miles City	74,277	
		$22,199,759
	Forward,	$197,558,201.40

RIGHT OF WAY, DEPOT GROUNDS AND REAL ESTATE.

Location	Acres	Value	
Superior	1,175.04	$1,650,910.93	
Duluth	600.91	5,155,203.75	
Duluth Union Depot	6.94	420,625.00	
St. Paul	751.68	9,907,889.34	
Minneapolis	309.87	5,292,819.22	
Tacoma	683.35	12,600,777.88	
Spokane	422.31	7,240,293.41	
Seattle	447.33	28,916,765.34	
Butte	223.76	2,000,000.00	
Everett	124.08	374,040.00	
Bellingham	71.69	430,596.47	
South Bend	35.63	249,410.00	
Aberdeen and Hoquiam	69.83	698,300.00	
Portland	13.66	500,000.00	
Walla Walla	22.00	100,000.00	
	4,958.68	$75,537,630.54	
All other	.....	31,337,986.66	
			$106,875,617.20
Kalama ferry boat—equipment includes tracks, etc.			617,000.00
Shop machinery and tools			1,100,000.00
Dredging at various seaports			500,000.00
General office buidings			756,600.00
Miscellaneous buildings, snow fences, ferry boats, barges, etc.			1,843,068.00
2,943 miles 6 wire telegraph line at $491.00			1,445,013.00
General and organization expenses for four years 5,785 miles @ $100			578,500.00
Additional freight charges on foreign lines between four mills per ton per mile and tariff rates			1,829,562.00
		Forward,	$313,103,561.60

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Name	Value	
Brought forward,		$313,103,561.60
OWNERSHIP IN FOLLOWING PROPERTIES:		
Minnesota and International Ry. 70% interest	$3,460,839.62	
Duluth Union Depot, exclusive of land	597,545.25	
St. Paul Union depot 1/9 interest	610,572.00	
Minnesota Ry. Transfer Co. 1/10 interest	575,600.00	
Lake Superior Terminal and Transfer Railway company, 17.51 miles—1/3 interest	117,000.00	
Northern Pacific Terminal Co. of Oregon in Portland 40% interest	$1,200,000.00	
Seattle Union depot and Terminal 1/2 interest June 30, 1906	2,826,695.00	
Legal expenses—5,785 miles @ $50		$9,388,251.87
CONTINGENCIES:		
Ten per cent on $212,155,575.24		289,250.00
ENGINEERING:		
Four and one-half per cent on $208,647,513.24		21,215,557.52
INTEREST:		
Five per cent per annum for four years, being one-half the time to build the road; allow two per cent per annum for earnings over operation, making net 3 per cent for interest on $349,924,919.47		9,389,138.10
Total		41,990,990.33
		$395,376,749.40
Average cost per mile for land		$18,475
Average cost per mile for construction		48,349
Total average cost per mile		66,724

At St. Paul, Minn.
Sept. 14, 1908.

COMPLAINANT'S EXHIBIT 26. BERRY.

BASIS UPON WHICH ESTIMATE OF COST TO REPRODUCE THE NORTHERN PACIFIC RAILWAY WAS MADE.

NUMERALS REPRESENT INTERSTATE COMMERCE COMMISSION ACCOUNTS.

1. *Engineering:* 4½ per cent of all items except 43-Law Expenses; 48-Other Expenditures; 47-Interest; 35-Earnings and Operating Expenses during construction, and contingencies.

2. & 3. *Real Estate, Right of Way and Station Grounds:* Have taken the Land Commissioner's valuation for all real estate, right of way and station grounds.

It may be said that included in the acreage for right of way and station grounds at other than the 15 important places, which are given in detail in the estimate, it includes more width (400 feet) between stations than is necessary.

To verify the value of the right of way and station grounds of $31,357,986, we will assume that the ordinary right of way is 100 feet wide plus additional width where required for construction.

Station grounds at unimportant places 100 feet wide extra by 3,000 feet long, station grounds at more important places 200 feet wide extra by 3,000 feet long, make a total of 96,232 acres. On a basis of 15 acres per mile of track for regular right of way at $200 per acre, making $3,000, and 1.7 acres per mile of track for station grounds as noted above at $400 per acre, making $3,680 per mile, would amount to $21,288,800, leaving about $10,300,586 to purchase station grounds (except at the 15 large terminals at all points where there was in excess of 1.7 acres; this does not seem excessive when you take into consideration the importance of the cities and land owned.

4. *Grading Including Clearing, Grubbing and Rip Rap:* Earth at 30c; loose rock at 53c; solid rock at $1.10, and rip rap and dykes at $2.00 per cubic yard. Clearing at $80.00 per acre; grubbing, $14 per station.

The above figures include contractor's price of earth, loose rock and solid rock, and 10c per cubic yard additional

to cover overhaul above 500 feet and transportation of contractor's outfits and men to and from the work.

5. *Tunnels:*

587 lin. ft. double track masonry lined.
20,613.2 lin. ft. single track masonry lined.
6,214.6 lin. ft. single track lined with wood.

Basis for figures—double track per lineal foot masonry lined:

36 Cu Yds. exca. at $4.50	$162.00
12 Cu Yds. masonry at $15.00	180.00
Total per lineal foot	$342.00

Basis for single track lined with masonry:

18 Cu. Yds. exca. at $4.50	$81.00
6 Cu. Yds. masonry at $15.00	$90.00
Total per lineal foot	$171.00

Basis for single track lined with wood:

Arch ribs 2′ centers, 635′ B M at $78.75	$50.00
40 lbs. iron at $0.02½	1.00
18 Cu. Yds. excavation at $4.50	81.00
Total per lineal foot	$132.00

6. *Bridges, Trestles & Culverts:* Estimate based on 5,785 miles of main line, costing $20,344,934, an average of $3,517 per mile, including all of the big truss and girder bridges. Deducting the value of the big bridges, including those at terminals, $11,466,705, leaves a net amount of $8,878,229.

The large truss and girder bridges costing $11,466,705 include such structures as,

St. Louis Bay, Duluth	$724,506
Missouri River—Mandan and protection	1,135,637
Columbia River at Pasco	667,289
Snake River on Wallace Line	1,195,644
Four Mississippi River bridges	1,001,750
Steel viaducts—O'Keefe and Marent	334.775
Aggregating	$5,059,601

The cost of the balance, $8,878,229, includes many large and costly arches; masonry, timber, cast iron pipe and vitrified pipe culverts, masonry piers and abutments supporting trusses and girders, pile and timber piers and abutments supporting trusses and girders.

This amount, $8,878,229, was pro rated on a mile basis as follows:

Single track main line including sidings....	$2,030
Double track main line including sidings....	3,248
Single track branch lines including sidings..	1,015

For all masonry and steel construction, the prevailing prices were used; $8.00 to $21.00 per cubic yard for masonry; includes excavation of foundations, coffer dams, piles, false-work and forms.

Superstructure:

Steel erected per ton, $70 to $80.
Freight at $5.00 per ton for iron and steel.
$1.00 per C Y for concrete material.
Lumber in Howe trusses in place, $40 per M.
Iron in Howe trusses in place, 3c per pound.

7. *Ties:* On basis of 3,000 per mile for main track; for sidings 2,800 per mile; all at 55 cents, allowing an average of 0.3 mile siding for each mile of main track, making 3,900 ties per mile of main line; allowing an average of 0.15 mile of siding for each mile of branch line, making 3,220 ties per mile of branch line additional in large yards.

Switch ties: Have allowed one-half set of switch ties per mile on branches and one and a half on main lines, and actual number used in large yards.

8. *Rail Per Mile:* of main track 75 lb. rail, sidings 62 lb. rail, 147 tons; Branch lines and sidings 62 lb. rail, 113 tons; at $34.30 per ton f. o. b. Chicago; inspection and transportation to the point where it is wanted on the work; freight rate at four mills per ton per mile.

9. *Frogs and Switches:* One and a half set complete for each mile of main line, and one-half set for each mile of branches, plus number actually in use in large yards.

10. *Track Fastenings:* Include rail braces, tie plates, angle bars, bolts and nut locks.

11. *Ballasting*: On a basis of 10 inches under tie at a cost of 75c per cubic yard in track complete. For sidings and branch lines allow one-half of above amount.

12. *Track-laying and Surfacing*: Including all expenses for train service and equipment $950.00 per mile of track laid, and $25 for each switch, which are figures taken from actual work.

13. *Roadway:* Not included in this estimate; there are large amount of tools left over from construction which are distributed among the maintenance forces.

14. *Fencing:* COST PER LINEAL MILE.

15. *Crossings, Cattle Guards & Signs:* This is on the basis of one crossing per mile.

16. *Interlocking & Signalling:* This represents actual cost up to March, 1907.

17. *Telegraph & Telephone lines:* This amount represents what is owned by the Northern Pacific, 2,943 miles 6 wire line at $491, amounting to $1,445,013.

18. *Station Building and Fixtures:* Taking actual cost; price per mile includes all of the station buildings and fixtures, and are estimated as follows: except in the large yards.

Passenger stations, brick (ordinary) at $2.80 per sq. ft.

Passenger stations, wood at $1.68 per sq. ft.

Special construction of better grade, at actual cost plus freight.

19. *General Office Buildings:* Are shown in the estimate, amounting to $756,600.

20. *Shops, Round Houses & Turn Tables:* Will include them in the large terminals on the following basis:

Frame round houses.....	$1,456 per stall
Brick round houses.....	2,352 per stall
Turntables each	5,600
Shops, brick, 1 story	1.65 per sq. ft.
Shops, brick, 2 story	2.75 per sq. ft.
Shops, frame, 1 story.....	1.10 per sq. ft.
Brick, sand and oil houses.....	1.68 per sq. ft.
Ash pits from	$2,000 to $5,000 apiece

21. *Shop Machinery & Tools:* This information was furnished by the Superintendent of Machinery, aggregating $1,100,000 pro rated on main line mileage.

22. *Water Stations:* Aggregating $1,966,900 is the result of taking the number of water stations on the road at a fair valuation per water station, pro rating this cost on a mile basis and checking it up by inspection; this includes some very large water stations at Mandan, Glendive, and other points.

23. *Fuel Stations:* Aggregating $731,779, is estimate of all important stations, the smaller ones are on branches, in many cases only platforms and are included in cost per mile of station buildings.

24. *Grain Elevators:* Included in miscellaneous structures.

25. *Warehouses:* Estimated as follows; from $1.00 to $1.35 for frame; for brick from $1.80 to $2.00 per sq. ft., aggregating $2,886,015; $1,309,590 of warehouses will be included in the various terminals; balance $1,576,425 will be included in cost per mile of road.

26. *Docks and Wharves:* Docks and the warehouses on the docks are included in estimates of Terminals; the dredging and improvements $500,000, are shown in the main estimate.

31. *Miscellaneous Structures:* Includes miscellaneous structures not covered by other headings, such as snow fences, houses for officials of the road, ice houses, track scales, stock yards, etc., on basis of per mile of road.

32. *Transportation of Men and Material:* Included in the unit price of the work on the basis of four mills per ton per mile.

34. *Repairs of Equipment:* Included in unit prices on the work it was employed.

35. *Earnings & Operating Expenses During Construction:* Nothing included; while there may be some earnings, the amount is very small and are more than used up by the maintenance of forces to take care of the property.

36. *Cost of Road Purchased:* There is nothing considered as the road is assumed to be built new.

37. *Legal Expenses:* It has been estimated that this will cost $50.00 per mile.

38. *General Expenses:* Including organization force during construction, $100 per mile.

45. *Insurance:* It has not been considered, but there have been a number of instances where it has been included in cost of construction.

46. *Taxes:* Same as item 45.

47. *Interest and Commission:* To build this mileage of 7,695 miles, it would take eight years, and work would have to be crowded all the time. It has been assumed that the average interest account would be about four years at 5 per cent per annum, as there will only be partial earnings during construction, we will assume the net earnings above operation equal to 2 per cent interest, so that the interest charge against construction is equal to 3 per cent on the cost for four years.

As to commission: It is impossible to say what this should be as we have no means of knowing what the securities are sold for nor commission on same.

48. Will be shown in detail expenditures.

Contingencies: While this is not shown in any Inter State system of accounts, I have included 10 per cent of all items, except 36, 46 and 47.

It is impossible for any one to anticipate the difficulties and if any one were to build the Northern Pacific over again they would still meet unforeseen difficulties.

From actual records, this has run from 8 per cent to 25 per cent, and I believe this is a proper charge against the work.

At St. Paul, Minn., Sept. 14, '08.

COMPLAINANT'S EXHIBIT 27. BERRY.

.....Company

STATEMENT OF ESTIMATED COST AND CONSTRUCTION EXPENDITURES.

Classed as.....

From.....to.....Miles..... To.....190...

Primary Accounts	Estimated Cost	Expenditures
Road	Total.....190...	
	Month of.....190...	
	To.....190...	
1. Engineering.		
2. Right of way and station grounds.		
3. Real estate.		
4. Grading.		
5. Tunnels.		
6. Bridges, trestles and culverts.		
7. Ties.		
8. Rails.		
9. Frogs and switches.		
10. Track fastenings and other material.		
11. Ballast.		
12. Track laying and surfacing.		
13. Roadway tools.		
14. Fencing right of way.		
15. Crossings and signs.		
16. Interlocking and other signal apparatus.		
17. Telegraph and telephone lines.		
18. Station buildings and fixtures.		
19. General office buildings and fixtures.		
20. Shops, engine houses and turntables.		
21. Shop machinery and tools.		
22. Water stations.		
23. Fuel stations.		
24. Grain elevators.		
25. Storage warehouses.		
26. Dock and wharf property.		
27. Electric—light plants.		
28. Electric—power plants.		
29. Electric—power transmission.		
30. Gas—producing plants.		
31. Miscellaneous structures.		
32. Transportation of men and material.		
33. Rent of equipment.		
34. Repairs of equipment.		
35. Earnings and operating expenses during construction.		
36. Cost of road purchased.		
General Expenditures:		
43. Law expenses.		
44. Stationery and printing.		
45. Insurance.		
46. Taxes.		
47. Interest and commission.		
48. Other expenditures.		
Total.		

COMPLAINANT'S EXHIBIT 28. GRAY.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement of Differences between State Exhibit "V" of Cash Cost, and H. A. Gray's Exhibit No. 15.

CONSTRUCTION.

			Total
Property acquired under foreclosure 1875 (estimated value of Equipment ($995,977.25) transferred to new company deducted)			$65,610,825.92
Allowed by the State			18,923,119.50
Spent by the old company to April 30, 1875 (as per ledger)—			
Construction		$21,377,108.88	
Less—allowed by State as above		18,923,119.50	
		$2,453,989.38	
Discount, commissions, expenses and interest on 7.3% Bonds and interest on notes		6,199,563.28	
Bonds and notes issued, and Net Land Receipts to April 30, 1875 were	$34,958,694.22		
Total Capital Expenditures—per statement attached—were	29,497,576.61		
Loss in operating and value of material and other assets		5,461,117.61	
Claims of old stockholders recognized in reorganization represented net cost in issue of new stocks—less proceeds of lands		32,573,036.15	$46,687,706.42
Improvements and Betterments to June 30, 1882 not shown in annual reports (Credits)		$311,163.82	
Error in State exhibit "V"—year 1885		.05	
Error in State exhibit "V"—year 1887, account premium 1st Mortgage Bonds		415,659.76	
Other permanent investments arbitrarily added to 1890 report to Commission as per memo attached to report, viz.:		1,351,633.64	
Real estate for railroad purposes at various points	$90,798.37		
Dock property at Duluth	16,025.79		
Minnesota Transfer property	7,426.81		
S. L. S. & E. connection at Spokane	31,272.93		
Coal land explorations and selections	13,228.19		

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VERTICAL IN BOOK

Tacoma Collieries		$85,491.73		
Lime quarry		1,420.59		
Various branch lines		605,969.23		
St. Paul & Duluth one-half interest in 23½ miles		500,000.00		
		$1,351,633.64		
			$1,908.15	
Property sold July and August, 1896		4,534,882.15		
Interest during construction		544,381.47	3,990,500.68	
Less—allowed by State				
		$17,569,743.26		
Discount on bonds	$25,688.00			
Less—allowed by State	12,118,219.75	12,143,907.75	5,425,835.51	$10,870,557.67
Included in specific construction prior to 1888				
Bonds and stocks of companies forming part of system included in "Construction" and Equipment (see pages 25-37-39 and 49 of 1896 report to the Commission) and cash expenditures made by the Northern Pacific R. R. Co.:				
St. Paul & Northern Pacific Ry. Co.	Bonds	$8,423,000.00		
" " " "	Stock	5,267,525.37		
Duluth & Manitoba Railway	Bonds	3,101,000.00		
" "	Cash expenditures	34,523.66		
N. P. F. & Black Hills R. R. Co.	Stock	50,000.00		
N. P. & Manitoba Terminal	Bonds	750,000.00		
James River Valley R. R.	"	963,000.00		
" " "	Property sold	3,540.76		
N. P. & Montana Railroad	Bonds	5,381,000.00	(Outstanding with public)	
" " "	Stock	50,000.00		
Helena & Red Mountain R. R.	Bonds	400,000.00		
" " "	Property sold	14,955.46		
Cœur d'Alene Ry. & Nav. Co.	Bonds	1,238,000.00		
" " "	Stock	294,975.48		
" " "	Cash expenditures	494,492.63		
Spokane & Palouse Railway	Bonds	1,766,000.00		
" "	Cash expenditures	296,416.68		
St. Paul Union Depot Company	Stock	50,000.00		
Duluth Union Depot Company	"	150,000.00		
Minnesota Transfer Railway Co.	"	7,000.00		
Lake Superior Terminal & Transfer Ry. Co.	Stock	15,700.00		

COMPLAINANT'S EXHIBIT 28. GRAY.—*Cont.*

Nor. Pac. Terminal Co. of Oregon Stock	$51,858.76		$28,765,996.36
			$86,324,260.45
Total cost of construction as per State's exhibit "V" to 1896 inclusive			132,738,302.58
Making as per Gray's exhibit No. 15			$219,062,563.03

EQUIPMENT.

Value of Equipment turned over to new Northern Pacific Railroad Company in 1875 and credited to the account "Property Acquired under Foreclosure"	$995,977.25	
Included in State Exhibit "V"	1,093,974.98	
		$97,997.73
Equipment purchased 1875 to June 30, 1880	$247,553.80	
Included in State Exhibit "V"	255,065.54	7,511.74
Equipment not included in annual reports:		
Year ending June 30, 1883—		
Pend d'Oreille Divn.—Credit	$9,904.99	
Pacific Division—Debit	1,500.00	
		8,404.99
Year ending June 30, 1884—		
Pend d'Oreille Division		1,960.00
Year ending June 30, 1885—		
Pullman-Nor. Pac. Association		37,505.50
Trust Equipment omitted in 1890 report to the Commission and corrected the following year		2,666,000.00
Equipment charged operating expenses in 1891 report		26,400.00
Equipment sold July and August, 1896 report		5,822.84
		$2,612,128.20
Discount and expenses on securities		939,858.42
Total to be added to State exhibit "V"		$3,551,986.62
Amount shown by State exhibit "V"		18,453,220.26
Amount shown in Gray's exhibit No. 15 (to Aug. 31, 1896)		$22,005,206.88

COMPLAINANT'S EXHIBIT 28. GRAY.—*Cont.*

PERIOD FROM SEPTEMBER 1, 1896 TO APRIL 30, 1908.

	Construction	Equipment
		*$296,000.00
Appropriation for equipment 1898 not used	*$154,490.00	
Value of S. & I. Ry. Co. equipment credited construction account in 1901		
Equipment expenditures included in appropriations from Income, shown in reports to the Commission under the head of "Construction," page 27 (see printed annual reports of the Railway Company)—		
Year ending June 30, 1900		641,581.81
" " 1901		492,249.43
" " 1902		201,064.44
" " 1904		338,604.65
" " 1905		4,169.14
Value of Washington & Columbia River Ry. Equipment		91,125.00
Securities of other companies forming part of Nor. Pac. Railway Co. system:		
Washington Central Railway Co. Bonds	1,853,000.00	
" " " Stock	221,279.94	
Clearwater Short Line Ry. Co. Stock	2,127,200.00	
Lake Superior Terminal & Transfer Ry. Co. Additional Stock	56,100.00	
St. Paul Union Depot Company Additional Stock	53,600.00	
	$4,156,689.94	$1,472,794.47
	86,437,173.38	36,118,328.03
Total cost as per State's Exhibit "V"	$90,593,863.32	$37,591,122.50
Making as per Gray's Exhibit No. 15		

RECAPITULATION.

	Construction	Equipment	Total
ADDITIONS TO STATE'S EXHIBIT "V."			
For the period to August 31, 1896	$86,324,260.45	$3,551,986.62	$89,876,247.07
For the period September 1, 1896 to April 30, 1908	4,156,689.94	1,472,794.47	5,629,484.41
	$90,480,950.39	$5,024,781.09	$95,505,731.48
Total Additions	219,175,475.96	54,571,548.29	273,747,024.25
Total of State's Exhibit "V"	$309,656,426.35	$59,596,329.38	$369,252,755.73
Making as per Gray's Exhibit No. 15			

* Full face type denotes "credit."

AUXILIARY TO EXHIBIT 28. GRAY.

Capital Expenditures made by Northern Pacific Railroad Company to April 30, 1875, as disclosed by an old ledger of that date.

Construction in Minnesota and North Dakota	$13,814,287.98	
Steamer "Ida Stockdale"	20,763.91	
Purchase and improvement of Lake Superior & Miss. R. R.	166,811.90	
Construction Pacific Division		$14,001,863.79
Engineering expenses, explorations, reconnaissances, etc., between Missouri River and Pacific Coast		4,551,982.41
General salaries, expenses, etc., including New York office		332,197.40
		755,244.44
Equipment		$19,641,288.04
		1,920,904.45
		$21,562,192.49
INVESTMENTS:		
Lake Superior & Puget Sound Co. stocks	$721,630.00	
Franchise Northern Mich. R. R.	9,010.60	
St. Paul & Pacific Railroad	1,005,180.24	1,735,820.84
		$23,298,013.33
Discount and Interest 1st Mortgage Bonds	$1,712,061.06	
Commissions, 1st Mortgage Bonds	4,300,859.69	
Printing and other expenses, 1st Mortgage Bonds	150,439.92	
Interest and Discount	36,202.61	6,199,563.28
Total (see Note)		$29,497,576.61

NOTE: There were no entries on the books covering Common Stock issued or to be issued in payment for services or other obligations, or sold in connection with First Mortgage Bonds.

COMPLAINANT'S EXHIBIT 29. COOPER. (N. P.)

Valuation made by Lester B. Elwood, F. E. Barney and J. Arthur Ridgeway on Real Estate owned by Northern Pacific Railway Company in Minneapolis, Minn.

PLAT No. 1

1. Between Marshall, University Avenue, Oak Street and 26th Avenue S. E., also shown on Plat No. 2,..... .30 per square foot.
2. Between 26th Avenue S. E. and City Limits,..... .25 per square foot.

PLAT No. 2

3. From 20th Avenue South to East line of Hancock and Rice Addition,..... .35 per square foot.
4. From East line Hancock and Rice Addition to River,..... .15 per square foot.
5. From River to Oak Street,..... .30 per square foot.

PLAT No. 3

Between Marshall, University Avenue, Oak Street and 26th Avenue S. E. (also included in Plat No. 1),..... .30 per square foot.

PLAT No. 4

6. From "E" Street to Como Avenue,..... .12 per square foot.
7. From Como Avenue to St. Paul City Limits,..... .10 per square foot.

PLAT No. 5

8. From Central Avenue to Fillmore Street,..... .35 per square foot.
9. From Fillmore Street to Johnson Street,..... .18 per square foot.
10. Between Johnson Street and Buchanan Street, Summer and Broadway,..... .15 per square foot.
11. Between Johnson, Broadway, "E" Street and Winter,.... .10 per square foot.
12. From Broadway N. E. to "H" Street,..... .07½ per square foot.

PLAT No. 6

13. From Broadway to Fillmore,..... .20 per square foot.
15. From Fillmore to Polk Street, as now laid out,..... 25 per square foot.
14. From Polk Street, as now laid out, to Van Buren (extended),..... .30 per square foot.
16. From Van Buren (extended) to 19th Avenue N. E.,..... .25 per square foot.
17. From 19th Avenue N. E. to 25th Avenue N. E.,..... .15 per square foot.

PLAT No. 7

18. As shown on said Plat between Main and Madison Streets, .20 per square foot.

PLAT No. 8

19. From 3rd Avenue North (West side of River) to Plymouth Avenue,..... 3.00 per square foot.
20. From Plymouth Avenue to 20th Avenue North,..... 1.00 per square foot.
21. From 20th Avenue North to 24th Avenue North,..... .45 per square foot.
22. From 24th Avenue North to 28th Avenue North,..... .30 per square foot.
23. From 28th Avenue North to 32nd Avenue North,..... .20 per square foot.
24. From 8th Avenue N. E. to 14th Avenue N. E.,..... .30 per square foot.
25. From 14th Avenue N. E. to 19th Avenue N. E.,..... .20 per square foot.
26. From 19th Avenue N. E. to 25th Avenue N. E.,..... .15 per square foot.

PLAT No. 9

27. From 25th Avenue N. E. to 27th Avenue N. E. between the River and University Avenue,..... .10 per square foot.
28. From 25th Avenue N. E. to 27th Avenue N. E. between University Avenue and Washington Street,..... .10 per square foot.
29. From 27th Avenue N. E. to 31st Avenue N. E.,..... 07½ per square foot.
30. From 31st Avenue N. E. to City Limits on the North,..... .05 per square foot.

LESTER B. ELWOOD.
J. ARTHUR RIDGEWAY.
FRED E. BARNEY.

Comparison of Valuation made by Messrs. Elwood, Barney and Ridgeway of Right of Way and other Operating Property of the Northern Pacific Railway Company in Minneapolis, Minnesota, with the Valuation returned by the Company as the Market Value of said Property in its Report to the State Railroad Commission.

District	Area in Sq. Ft.	Valuation by Elwood, Barney & Ridgeway		Valuation by Railway Co.	
		Per Sq. Ft.	Total	Per Sq. Ft.	Total
1. Between Marshall, University Avenue, Oak Street and 26th Avenue S. E.	382,101	$.30	$114,630.30	$.30	$114,630.30
2. Between 26th Avenue S. E. and City Limits	357,988	.25	89,497.00	.25	89,497.00
3. From 20th Avenue South to East line of Hancock and Rice Addition	33,950	.35	11,882.50	.35	11,882.50
4. From East line Hancock and Rice Addition to River	38,500	.15	5,775.00	.15	5,775.00
5. From River to Oak Street	305,032	.30	91,509.60	.30	91,509.60
6. From "E" Street to Como Avenue	569,416	.12	68,329.92	.12	68,329.92
7. From Como Avenue to St. Paul City Limits	860,600	.10	86,060.00	.10	86,060.00
8. From Central Avenue to Fillmore Street	302,146	.35	105,751.10	.35	105,751.10
9. From Fillmore Street to Johnson Street	66,850	.18	12,033.00	.18	12,033.00
10. Between Johnson Street and Buchanan Street, Summer and Broadway	151,659	.15	22,748.85	.15	22,748.85
11. Between Johnson, Broadway, "E" Street and Winter	749,310	.10	74,931.00	.10	74,931.00
12. From Broadway N. E. to "H" Street	114,150	.07½	8,561.25	.07½	8,561.25
13. From Broadway to Fillmore	152,908	.20	30,581.60	.20	30,581.60
14. From Polk Street, as now laid out, to Van Buren (extended)	232,666	.30	69,799.80	.30	69,799.80
15. From Fillmore to Polk Street, as now laid out	153,200	.25	38,300.00	.25	38,300.00
16. From Van Buren (extended) to 19th Avenue N. E.	316,285	.25	79,071.25	.25	79,071.25
17. From 19th Avenue N. E. to 25th Avenue N. E.	395,101	.15	59,265.15	.15	59,265.15
18. As shown on said Plat between Main and Madison Streets	142,083	.20	28,416.60	.20	28,416.60
19. From 3rd Avenue North (West side of River) to Plymouth Avenue	874,639	3.00	2,623,917.00	2.75	2,405,257.25
20. From Plymouth Avenue to 20th Avenue North	80,860	1.00	80,860.00	1.00	80,860.00
21. From 20th Avenue North to 24th Avenue North	105,160	.45	47,322.00	.45	47,322.00
22. From 24th Avenue North to 28th Avenue North	129,309	.30	38,792.70	.30	38,792.70
23. From 28th Avenue North to 32nd Avenue North	51,780	.20	10,356.00	.20	10,356.00
24. From 8th Avenue N. E. to 14th Avenue N. E.	71,460	.30	21,438.00	.30	21,438.00
Carried forward	6,637,153		$3,819,829.62		$3,601,169.87

COMPLAINANT'S EXHIBIT 29. COOPER. (N. P.)—*Cont.*

District	Area in Sq. Ft.	Valuation by Elwood, Barney & Ridgeway		Valuation by Railway Co.	
		Per Sq. Ft.	Total	Per Sq. Ft.	Total
Brought forward	6,637,153		$3,819,829.62		$3,601,169.87
25. From 14th Avenue N. E. to 19th Avenue N. E.	368,059	$0.20	73,611.80	$0.20	73,611.80
26. From 19th Avenue N. E. to 25th Avenue N. E.	308,926	.15	46,338.90	.15	46,338.90
27. From 25th Avenue N. E. to 27th Avenue N. E. between the River and University Avenue	349,678	.10	34,967.80	.10	34,967.80
28. From 25th Avenue N. E. to 27th Avenue N. E. between University Avenue and Washington Street	226,570	.10	22,657.00	.10	22,657.00
29. From 27th Avenue N. E. to 31st Avenue N. E.	2,557,360	.07½	191,802.00	.07½	191,802.00
30. From 31st Avenue N. E. to City Limits on the No	1,080,026	.05	54,001.30	.05	54,001.30
*Backus Mill Spur between 32nd and 34th Avenues	20,450	.15	3,067.50	.15	3,067.50
	11,548,222		$4,246,275.92		$4,027,616.17

* This was not appraised by Messrs. Elwood, Barney and Ridgeway, but is included in this statement at same price as returned by Railway Company in order to make this statement complete.

COMPLAINANT'S EXHIBIT 30. COOPER. (N. P.)

Valuation made by O. L. Taylor, John J. Watson and W. C. Read, October 1st, 1906, on Property owned by Northern Pacific Railway Company in Ramsey County, Minnesota.

1.	From Broadway to Pine Street	$8.00 per square foot
2.	From Pine Street to Willius Street	4.00 per square foot
3.	From Willius Street to Sixth Street Viaduct	2.50 per square foot
4.	From Sixth Street Viaduct to Eighth Street	2.50 per square foot
5.	From Commercial Street to Seventh Street	2.00 per square foot
6.	From Seventh Street to North Street	1.00 per square foot
7.	From North Street to Minnehaha Street	.25 per square foot
8.	From Eighth Street to Lafayette Avenue	1.00 per square foot
9.	From Lafayette Avenue to Pennsylvania Avenue	.50 per square foot
10.	From Pennsylvania Avenue to Maryland Street	.25 per square foot
11.	All property in Bass Garden Lots north of Maryland Street and to Cortland Street	.10 per square foot
12.	Cortland Street to Rice Street	.05 per square foot
13.	Rice Street to Dale Street	.05 per square foot
14.	From Dale Street to Lexington Avenue	.08 per square foot
15.	All property in Como shops grounds	.10 per square foot
16.	Snelling Avenue to Everett Ct	.08 per square foot
17.	From Transfer to City limits	.25 per square foot
18.	From Prior Avenue to Folwell and all north of Great Northern tracks	.15 per square foot
19.	From Minnehaha Street to Arcade Street	.12½ per square foot
20.	From Arcade Street to Earl Street	.15 per square foot
21.	From Earl Street to Rose Street	.10 per square foot
22.	From Maryland Avenue to Minneapolis Avenue	.04 per square foot

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COMPLAINANT'S EXHIBIT 30. COOPER. (N. P.)—*Cont.*

Comparison of Valuation made by Messrs. Read, Watson and Taylor of Right of Way and other Operating Property of the Northern Pacific Railway Company in St. Paul, Minn., with the Valuation returned by the Company as the Market Value of said Property in its report to the State Railroad Commission.

District	Area in Sq. Ft.	Valuation by Read, Watson & Taylor		Valuation by Railway Co.	
		Per Sq. Ft.	Total	Per Sq. Ft.	Total
1. From Broadway to Pine Street	57,396	$8.00	$459,168.00	$3.40	$3,979,734.00
2. From Pine Street to Willius Street	492,928	4.00	1,971,712.00		
3 and 4. From Willius Street to Eighth Street	620,186	2.50	1,550,465.00		
			$3,981,345.00		
5. From Commercial Street to Seventh Street	805,508	2.00	1,611,016.00	1.50	1,208,262.00
6. From Seventh Street to North Street	104,590	1.00	104,590.00	.75	78,442.50
7. From North Street to Minnehaha Street	154,226	.25	38,556.50	.20	30,845.20
8. From Eighth Street to Lafayette Avenue	507,075	1.00	507,075.00	.70	354,952.50
9. From Lafayette Avenue to Pennsylvania Avenue	174,030	.50	87,015.00	.35	60,910.50
10. From Pennsylvania Avenue to Maryland Street	3,655,821	.25	913,955.25	.17	621,489.57
11. All property in Bass Garden Lots north of Maryland Street and to Cortland St.	2,179,260	.10	217,926.00	.07	152,548.20
12. Cortland Street to Rice Street	430,000	.05	21,500.00	.05	21,500.00
13. Rice Street to Dale Street	880,455	.05	44,022.75	.05	44,022.75
14. From Dale Street to Lexington Avenue	801,086	.08	64,086.88	.07	56,076.02
15. All property in Como shops grounds	9,244,700	.10	924,470.00	.05	462,235.00
16. Snelling Avenue to Everett Ct. (should be Prior Ave.)	919,440	.08	73,555.20	.04	36,777.60
17. From Transfer to City Limits	873,980	.25	218,495.00	.15	131,097.00
18. From Prior Avenue to Folwell and all north of Great Northern tracks	1,718,848	.15	257,827.20	.10	171,884.80
19. From Minnehaha Street to Arcade Street	363,485	.12½	45,435.63	.10	36,348.50
20. From Arcade Street to Earl Street	239,701	.15	35,955.15	.12½	29,962.62
21. From Earl Street to Rose Street	1,595,164	.10	159,616.40	.07	111,731.48
22. From Maryland Avenue to Minneapolis Avenue	530,000	.04	21,200.00	.04	21,200.00
*Folwell Street to City Limits	350,800	.15	52,620.00	.10	35,080.00
	26,699,679		$9,380,262.96		$7,645,100.24

* This was not appraised by Messrs. Read, Watson and Taylor, but is included in this statement at same price as returned by Railway Company in order to make this statement complete.

COMPLAINANT'S EXHIBIT 32. ELLIOTT.

THE WESTERN UNION TELEGRAPH COMPANY.
(Incorporated.)

No. 613, Sent By Bu Ti, Rec'd By Ti, 192 PdNite, X 3 Ex. Dated St. Paul, Minn. 22, Rec'd at 11:35 p. m. Apl. 22, 1907.

To The President and Board of Directors of the Northern Pacific Ry. Co. 34 Nassau St., New York.

The undersigned stockholders of the Company, on behalf of all stockholders, present the following:

On September 6, 1906, the Railroad and Warehouse Commission of Minnesota largely reduced your merchandise rates; on April 2, 1907, the Legislature of Minnesota passed an act reducing your passenger rates to two cents; on April 9th the Legislature of Minnesota passed an act largely reducing your rates on grain, live stock, coal and lumber. We protest against these reductions as unreasonable, confiscatory and for other reasons illegal. We are informed you have obeyed the said Commission's order and are preparing to obey the said two laws. This we protest against on behalf of ourselves and all other stockholders and we demand that you cease obedience at once to said Commission's order and that you refuse obedience to said laws or either of them; also that you cause, as soon as may be, to be brought by the corporation, a suit or suits in the Circuit Court of the United States or in some court having jurisdiction to have all of said reductions of rates declared illegal and enjoined.

CHARLES E. PERKINS,
DAVID C. SHEPARD.

COMPLAINANT'S EXHIBIT 33. ELLIOTT.

A communication was received from stockholders Charles E. Perkins and David C. Shepard, which was as follows:

"St. Paul, Minn., April 22, 1907.

"The President and Board of Directors of the Northern Pacific Ry. Co., 34 Nassau Street, New York.

"The undersigned stockholders of the Company, on behalf of all stockholders, present the following: On September 6, 1906, the Railroad and Warehouse Commission of Minnesota largely reduced your merchandise rates; on April 2, 1907, the Legislature of Minnesota passed an act reducing your passenger rates to two cents; on April 9, the Legislature of Minnesota passed an act largely reducing your rates on grain, live stock, coal and lumber.

"We protest against these reductions as unreasonable, confiscatory and, for other reasons, illegal. We are informed you have obeyed the said Commission's order and are preparing to obey the said two laws. This we protest against on behalf of ourselves and all other stockholders, and we demand that you cease obedience at once to said Commission's order, and that you refuse obedience to said laws, or either of them; also that you cause, as soon as may be, to be brought by the corporation a suit or suits in the Circuit court of the United States, or in some court having jurisdiction, to have all of said reductions of rates declared illegal and enjoined.

(signed) CHARLES E. PERKINS,
DAVID C. SHEPARD."

After discussion, it was unanimously

RESOLVED; That, considering the legal penalties, both against officers and against the corporation, involved in disobedience of said order of the Commissioners or of said laws, the said demand of stockholders be and it is refused.

COMPLAINANT'S EXHIBIT 34. ELLIOTT.

New York, April 24, 1907.

D. C. SHEPARD. St. Paul, Minn.

Telegram from you to Mr. C. E. Perkins duly received. At a meeting of the executive committee of the board of directors of the Northern Pacific Railway Company held to-day, it was unanimously RESOLVED that, considering the legal penalties, both against officers and against the corporation, involved in disobedience of said order of the commission or of said laws, the said demand of stockholders be, and it is refused.

HOWARD ELLIOTT, President.

COMPLAINANT'S EXHIBIT 35. BAIRD.

COMPARATIVE STATEMENT OF RATES FROM AND TO MOORHEAD, MINNESOTA.

Between Moorhead and stations west in North Dakota.	Merchandise					Carload Classes				
	1	2	3	4	5	A	B	C	D	E
5 Miles	10	9	7	5	4	4	4	3	3	2
10 "	10	9	7	5	4	4	4	3	3	2
15 "	13	11	9	7	5	5	5	4	3	3
20 "	16	14	11	8	6	6	6	5	4	3
25 "	19	16	13	10	8	8	7	6	5	4
30 "	22	19	15	11	9	9	8	7	5	4
35 "	25	21	17	13	10	10	9	8	6	5
40 "	27	23	18	14	11	11	9	8	6	5
45 "	29	25	19	15	12	12	10	9	7	6
50 "	31	26	20	16	12	12	11	9	7	6
55 "	33	28	22	17	13	13	12	10	8	7
60 "	35	30	23	18	14	14	12	11	8	7
65 "	36	31	24	18	14	14	13	11	9	7
70 "	37	31	24	19	15	15	13	11	9	7
75 "	38	32	25	19	15	15	13	11	9	8
80 "	39	33	26	20	16	16	14	12	9	8
85 "	40	34	26	20	16	16	14	12	10	8
90 "	41	35	27	21	16	16	14	12	10	8
95 "	42	36	28	21	17	17	15	13	10	8
100 "	43	37	28	22	17	17	15	13	10	9
To Moorhead from stations east in Minnesota.	**1**	**2**	**3**	**4**	**5**	**A**	**B**	**C**	**D**	**E**
5 Miles	12.6	10.5	8.4	6.3	5.	5.7	4.4	3.8	3.1	2.5
10 "	13.6	11.4	9.1	6.8	5.4	6.1	4.8	4.1	3.4	2.7
15 "	14.7	12.2	9.8	7.3	5.9	6.6	5.1	4.4	3.7	2.9
20 "	15.7	13.1	10.5	7.8	6.3	7.1	5.5	4.7	3.9	3.1
25 "	16.7	13.9	11.1	8.4	6.7	7.5	5.8	5.	4.2	3.3
30 "	17.7	14.8	11.8	8.9	7.1	8.	6.2	5.3	4.4	3.5
35 "	18.8	15.6	12.5	9.4	7.5	8.4	6.6	5.6	4.7	3.8
40 "	19.8	16.5	13.2	9.9	7.9	8.9	7.	5.9	5.	4.
45 "	20.8	17.4	13.9	10.4	8.3	9.4	7.3	6.2	5.2	4.2
50 "	21.9	18.2	14.6	10.9	8.7	9.8	7.6	6.6	5.5	4.4
55 "	22.9	19.1	15.3	11.4	9.2	10.3	8.	6.9	5.7	4.6
60 "	23.9	19.9	15.9	12.	9.6	10.8	8.4	7.2	6.	4.8
65 "	24.9	20.8	16.6	12.5	10.	11.2	8.7	7.5	6.2	5.
70 "	26.	21.6	17.3	13.	10.4	11.7	9.1	7.8	6.5	5.2
75 "	27.	22.5	18.	13.5	10.8	12.2	9.5	8.1	6.7	5.4
80 "	28.	23.4	18.7	14.	11.2	12.6	9.8	8.4	7.	5.6
85 "	29.1	24.2	19.4	14.5	11.6	13.1	10.2	8.7	7.3	5.8
90 "	30.1	25.1	20.	15.	12.	13.5	10.5	9.	7.5	6.
95 "	31.1	25.9	20.7	15.6	12.4	14.	10.9	9.3	7.8	6.2
100 "	32.1	26.8	21.4	16.1	12.9	14.5	11.2	9.6	8.	6.4

m Moorhead to stations east in Minnesota.	Merchandise					Carload Classes				
	1	2	3	4	5	A	B	C	D	E
Miles	12.	10.	8.	6.	4.8	5.4	4.2	3.6	3.	2.4
"	13.	10.8	8.6	6.5	5.2	5.8	4.5	3.9	3.2	2.6
"	14.	11.6	9.3	7.	5.6	6.3	4.9	4.2	3.5	2.8
"	14.9	12.4	10.	7.5	6.	6.7	5.2	4.5	3.7	3.
"	15.9	13.3	10.6	8.	6.4	7.2	5.6	4.8	4.	3.2
"	16.9	14.1	11.3	8.4	6.8	7.6	5.9	5.1	4.2	3.4
"	17.9	14.9	11.9	8.9	7.1	8.	6.3	5.4	4.5	3.6
"	18.9	15.7	12.6	9.4	7.5	8.5	6.7	5.7	4.7	3.8
"	19.8	16.5	13.2	9.9	7.9	8.9	6.9	5.9	5.	4.
"	20.8	17.3	13.9	10.4	8.3	9.4	7.3	6.2	5.2	4.2
"	21.8	18.2	14.5	10.9	8.7	9.8	7.6	6.5	5.4	4.4
"	22.8	19.	15.2	11.4	9.1	10.2	8.	6.8	5.7	4.6
"	23.8	19.8	15.8	11.9	9.5	10.7	8.3	7.1	5.9	4.7
"	24.7	20.6	16.5	12.4	9.9	11.1	8.7	7.4	6.2	4.9
"	25.7	21.4	17.1	12.9	10.3	11.6	9.	7.7	6.4	5.1
"	26.7	22.2	17.8	13.3	10.7	12.	9.3	8.	6.7	5.3
"	27.7	23.1	18.4	13.8	11.1	12.5	9.7	8.3	6.9	5.5
"	28.7	23.9	19.1	14.3	11.5	12.9	10.	8.6	7.2	5.7
"	29.6	24.7	19.8	14.8	11.9	13.3	10.4	8.9	7.4	5.9
"	30.6	25.5	20.4	15.3	12.2	13.8	10.7	9.2	7.7	6.1

ATES BETWEEN POINTS 100 MILES APART, ONE LOCATED EAST IN MINNESOTA AND ONE WEST IN NORTH DAKOTA, DISTANCE FROM MOORHEAD AS SHOWN IN FIRST COLUMN.

iles		Merchandise					Carload Classes				
		1	2	3	4	5	A	B	C	D	E
0 Interstate		43.	37.	28.	22.	17.	17.	15.	13.	10.	9.
E–10W Locals.	WB..	40.1	34.1	27.	20.	16.	17.5	14.5	12.	10.5	8
"	EB...	38.7	32.9	26.1	19.3	15.5	16.9	14.	11.6	10.2	7.7
E–20W Locals.	WB...	44	37.4	29.7	22.	17.2	18.6	15.8	13.4	11.	8.6
"	EB...	42.7	36.2	28.8	21.3	16.7	18.	15.3	13.	10.7	8.3
E–30W Locals.	WB...	48.	40.6	32.3	24.	19.4	20.7	17.1	14.8	11.5	9.2
"	EB...	46.7	39.6	31.5	23.4	18.9	20.1	16.7	14.4	11.2	8.9
E–40W Locals.	WB...	50.9	42.9	33.9	26.	20.6	21.8	17.4	15.2	12.	9.8
"	EB...	49.8	42.	33.2	25.4	20.1	21.2	17.	14.8	11.7	9.6
E–50W Locals.	WB...	52.9	44.2	34.6	26.9	20.7	21.8	18.6	15.6	12.5	10.4
"	EB...	51.8	43.3	33.9	26.4	20.3	21.4	18.3	15.2	12.2	10.2
E–60W Locals.	WB...	54.8	46.5	36.2	27.9	21.9	22.9	19.	16.9	13.	11.
"	EB...	53.9	45.7	35.6	27.4	21.5	22.5	18.7	16.7	12.7	10.8
E–70W Locals.	WB...	54.7	45.8	35.8	27.9	22.1	23.	19.2	16.3	13.4	10.5
"	EB...	53.9	45.1	35.3	27.4	21.8	22.6	18.9	16.1	13.2	10.4
E–80W Locals.	WB...	54.7	46.1	36.5	27.8	22.3	23.1	19.5	16.7	12.9	11.1
"	EB...	53.9	45.4	36.	27.5	22.	22.7	19.2	16.5	12.7	11.
0E–90W Locals.	WB...	54.6	46.4	36.1	27.8	21.4	22.1	18.8	16.1	13.4	10.7
"	EB...	54.	45.8	35.6	27.5	21.2	21.8	18.5	15.9	13.2	10.6

Interstate rates are those actually in effect.

Locals W. B. and E. B.—Represent Minnesota rates between Moorhead and tations east in Minnesota, added to interstate rates between Moorhead and sta- ions west in North Dakota.

Eastbound locals are lower on account of the distributing tariff from Moor- head to Minnesota stations.

COMPLAINANT'S EXHIBIT 36. BAIRD.—SUPPLEMENTARY.

Rates shown in cents per one hundred pounds.

STATEMENT SHOWING RATES IN EFFECT AT THE PRESENT TIME (EXCEPT AS OTHERWISE SHOWN) FOR VARIOUS DISTANCES FROM 25 TO 400 MILES, IN MINNESOTA DISTANCE TARIFF, TERMINAL TARIFF FROM MINNEAPOLIS, MONTANA DISTANCE TARIFF, TERMINAL TARIFF FROM HELENA, WASHINGTON DISTANCE TARIFF, TERMINAL TARIFF FROM TACOMA.

Washington Distance 22506-23210
Minnesota Distance 22507 (former rates 9601)
Terminal from Minneapolis 23825-24677 (former rates 18000)

Terminal from Tacoma 280-A
Montana Distance 22506
Terminal from Helena 22490-22506

Distance		1	2	3	4	5	A	B	C	D	E
	Minnesota Distance	16.7	13.9	11.1	8.4	6.7	7.5	5.8	5	4.2	3.3
	Minnesota Distance (former)	19	16	13	10	8	8	7	6	5	4
	Terminal from Minneapolis	15.9	13.3	10.6	8	6.4	7.2	5.6	4.8	4	3.4
	Terminal from Minneapolis (former)	18	15	12	9	7	7	6	5	4	4
25	Montana Distance	25	21	18	15	13	13	10	8	6	5
	Terminal from Helena	22	19	15	13	13	13	10	8	6	5
		*22	*19	*15	*13	*11	*9	*7	*6	*5	*4
	Washington Distance	25	21	18	15	13	13	10	8	6	5
	Terminal from Tacoma	25	21	18	15	13	10	8	7	5	4
	Minnesota Distance	21.9	18.2	14.6	10.9	8.7	9.8	7.6	6.6	5.5	4.4
	Minnesota Distance (former)	31	26	20	16	12	12	11	9	7	6
	Terminal from Minneapolis	20.8	17.3	13.9	10.4	8.3	9.4	7.3	6.2	5.2	4.2
	Terminal from Minneapolis (former)	30	26	20	15	12	12	11	9	7	6
50	Montana Distance	40	34	28	24	20	20	16	12	10	8
	Terminal from Helena	34	29	24	20	20	20	16	12	10	8
		*34	*29	*24	*20	*17	*14	*12	*10	*8	*6
	Washington Distance	40	34	28	24	20	20	16	12	10	8
	Terminal from Tacoma	40	34	28	24	20	17	15	12	10	8

	Minnesota Distance	27	22.5	18	13.5	10.8	12.2	9.5	8.1	6.7	5.4
	Minnesota Distance (former)	38	32	25	19	15	15	13	11	9	8
	Terminal from Minneapolis	24.7	20.6	16.5	12.4	9.9	11.1	8.7	7.4	6.2	4.9
	Terminal from Minneapolis (former)	36	31	24	18	14	14	13	11	9	7
75	Montana Distance	50	43	35	30	25	25	20	15	13	10
	Terminal from Helena	44	37	31	26	25	25	20	15	13	10
		*44	*37	*31	*26	*22	*18	*15	*13	*11	*9
	Washington Distance	50	43	35	30	25	25	20	15	13	10
	Terminal from Tacoma	†56	†48	†39	†34	†28	†28	†22	†17	†14	†11
	Minnesota Distance	32.1	26.8	21.4	16.1	12.9	14.5	11.2	9.6	8	6.4
	Minnesota Distance (former)	43	37	28	22	17	17	15	13	10	9
	Terminal from Minneapolis	30.6	25.5	20.4	15.3	12.2	13.8	10.7	9.2	7.7	6.1
	Terminal from Minneapolis (former)	42	36	28	21	17	17	15	13	10	8
100	Montana Distance	60	51	42	36	30	30	24	18	15	12
	Terminal from Helena	54	46	38	32	30	30	24	18	15	12
		*54	*46	*38	*32	*27	*22	*19	*16	*13	*10
	Washington Distance	60	51	42	36	30	30	24	18	15	12
	Terminal from Tacoma	60	51	42	36	30	30	24	18	15	12
	Minnesota Distance	42.4	35.4	28.3	21.2	17	19.1	14.9	12.7	10.6	8.5
	Minnesota Distance (former)	53	45	35	27	21	21	19	16	13	11
	Terminal from Minneapolis	40.4	33.7	26.9	20.2	16.2	18.2	14.1	12.1	10.1	8.1
	Terminal from Minneapolis (former)	50	43	33	25	20	20	18	15	12	10
150	Montana Distance	80	68	56	48	40	40	32	24	20	16
	Terminal from Helena	64	55	44	38	38	38	32	24	20	16
		*64	*54	*45	*38	*32	*26	*22	*19	*16	*13
	Washington Distance	80	68	56	48	40	40	32	24	20	16
	Terminal from Tacoma	80	68	56	48	40	40	32	24	20	16
	Minnesota Distance	52.7	43.9	35.1	26.4	21.1	23.7	18.5	15.8	13.2	10.5
	Minnesota Distance (former)	63	54	42	32	25	25	22	19	15	13
	Terminal from Minneapolis	50.2	41.8	33.5	25.1	20.1	22.6	17.6	15.1	12.6	10
	Terminal from Minneapolis (former)	60	51	40	30	24	24	21	18	14	12
200	Montana Distance	100	85	70	60	50	50	40	30	25	20
	Terminal from Helena	74	63	52	44	44	44	40	30	25	20
		*74	*63	*52	*44	*37	*30	*26	*22	*19	*15
	Washington Distance	100	85	70	60	50	50	40	30	25	20
	Terminal from Tacoma	97	81	68	58	46	46	39	28	23	18

COMPLAINANT'S EXHIBIT 36. BAIRD.—SUPPLEMENTARY.—*Cont.*

Distance		1	2	3	4	5	A	B	C	D	E
	Minnesota Distance	63	52.5	42	31.5	25.2	28.4	22.1	18.9	15.8	12.6
	Minnesota Distance (former)	83	71	55	42	33	33	29	25	20	17
	Terminal from Minneapolis	61	50.8	40.7	30.5	24.4	27	21.3	18.3	15.2	12.2
	Terminal from Minneapolis (former)	67	57	44	34	27	27	23	20	16	13
300	Montana Distance	140	119	98	84	70	70	56	42	35	28
	Terminal from Helena	94	80	66	56	56	56	56	42	35	28
	Washington Distance	140	119	98	84	70	70	56	42	35	28
	Terminal from Tacoma	120	108	89	79	65	55	48	37	27	20
	Minnesota Distance	73.3	61.1	48.9	36.6	29.3	32.9	25.7	22	18.3	14.7
	Minnesota Distance (former)	103	88	69	53	41	41	36	31	25	21
	Terminal from Minneapolis	67	56	45	34	27	30	23	20	17	13
	Terminal from Minneapolis (former)	89	76	59	45	36	36	31	27	21	18
400	Montana Distance	160	136	112	96	80	80	64	48	40	32
	Terminal from Helena	114	97	80	67	67	67	64	48	40	32
	Washington Distance	160	136	112	96	80	80	64	48	40	32
	Terminal from Tacoma	135	120	95	80	65	65	55	44	36	26

*Applies only between stations south of Seattle and west of Auburn and Cascade Junction.
†Tacoma rates for 75 miles apparently exceed Washington Distance Tariff for the reason that Tacoma rates shown are those applying to first station beyond the exact distances.

COMPLAINANT'S EXHIBIT 37. BAIRD.

STATEMENT SHOWING THE RATES ON COAL FOR VARIOUS DISTANCES UP TO 400 MILES, FROM DULUTH TO MINNESOTA AND DAKOTA POINTS, FROM RED LODGE, MONT., FROM ROSLYN, WASH., AS COMPARED WITH LEGISLATIVE RATES FOR THE SAME DISTANCES.

Distance	Minnesota Legislative		From Duluth		From Red Lodge	From Roslyn
	Hard	Soft	Hard	Soft		
50 Miles	$0.77	$0.62	$1.00	$0.90	$1.25	$0.95
100 "	1.01	.82	1.25	1.15	1.30	1.35
150 "	1.19	.95	1.75	1.65	1.50	1.80
200 "	1.44	1.16	1.90	1.85	1.65	2.05
250 "	1.68	1.34	2.10	2.00	1.65	2.50
300 "	1.92	1.54	2.10	2.00	2.25	2.50
350 "	2.04	1.63	2.25	2.15	2.85	3.30
400 "	2.16	1.72	2.25	2.15	3.00	3.30
Minnesota Legislative rates would reduce..			16.4%	29.4%	36.7%	44.9%

Tariff Authority

From Duluth.....22210 Cor.
From Red Lodge.....22803
From Roslyn 24334

COMPLAINANT'S EXHIBIT 38. BAIRD.

Statement Showing Rates on Lumber for Various Distances up to 400 Miles, from Minneapolis to Points in Minnesota and North Dakota, Locally in Montana, from Tacoma to Points in Washington and Idaho, as Compared with the Legislative Rates for the Same Distances.

Tariff Authority.

Terminal from Minneapolis, 13400. Minnesota Distance, 23002.
Montana Distance, 24319. Washington Distance, 22506.
Terminal from Tacoma, 24295.

Distance	Minnesota			Montana Distance	Washington	
	Legislative	Distance	Terminal from Minneapolis		Distance	Terminal from Tacoma
50 miles.....	6.5	7.0	6.0	6.5	8.0	8.0
100 "	9.0	11.5	9.0	9.5	12.0	12.0
150 "	10.0	14.0	12.0	12.5	16.0	15.0
200 "	11.0	16.5	13.5	14.0	20.0	15.0
250 "	11.8	19.0	15.0	16.5	24.0	15.0
300 "	12.5	21.5	15.5	18.5	28.0	19.0
350 "	13.2	24.0	18.0	19.5	30.0	19.5
400 "	13.7	26.5	21.0	22.0	32.0	20.0
Minnesota Legislative rates would reduce		37.3%	20.3%	26.3%	48.4%	29.1%

COMPLAINANT'S EXHIBIT 39. BAIRD.

Statement Showing Rates on Live Stock from Local Points in Minnesota and North Dakota to Minneapolis, between Points in Montana, and from Points in Washington and Idaho to Tacoma for Distances within 400 Miles. Also the Legislative Rates for same Distance.

Tariff Authority.

North Dakota to Minneapolis, 273-A
Washington & Idaho to Tacoma, 21965

Minnesota to Minneapolis, 272-A
Montana Distance, 14156

Distance	Terminal to or from Minneapolis			Montana Distance		Terminal to Tacoma		Legislative Rates	
	Horses	Cattle Sheep	Hogs	Horses	Cattle Hogs Sheep	Horses	Cattle Hogs Sheep	Cattle Sheep DD	Hogs Sheep SD
50 Miles	21.60	18.70	18.28	31.20	26.40	33.65	30.15	18.62	16.50
100 "	31.80	27.50	26.78	44.40	38.40	46.40	41.75	22.80	20.25
150 "	36.00	31.35	30.60	50.40	44.40	62.64	58.00	26.98	23.85
200 "	42.00	37.40	36.55	56.40	50.40	62.64	59.16	30.97	27.60
250 "	49.80	42.90	42.07	62.40	56.40	62.64	59.16	33.06	29.40
300 "	54.60	45.10	44.20	58.40	62.40	83.50	75.40	35.15	31.20
350 "	60.00	47.30	46.33	74.40	68.40	83.50	75.40	37.24	33.15
400 "	60.00	51.70	50.58	80.40	74.40	93.95	81.80	39.33	34.95
Minnesota	Cattle	19.1%	26.5%	Cattle	42.0%	Cattle	49.2%		
Legislative	Sheep DD	19.1%		Hogs	48.5%	Hogs	54.8%		
Rates would reduce	Sheep SD	28.1%		Sheep DD	42.0%	Sheep DD	49.2%		
				Sheep SD	48.5%	Sheep SD	54.8%		

Rates in dollars and cents per car.

COMPLAINANT'S EXHIBIT 40. BAIRD.

	Rates in cents per 100 lbs. except as noted
LIVE STOCK (Hogs, etc.)	
Grand Forks, North Dakota to St. Paul (tariff rate)	26. cents
East Grand Forks to St. Paul (proposed rate)	21.4 "
Difference	4.6 "
LIVE STOCK (Cattle, etc.)	
Grand Forks, North Dakota to St. Paul (tariff rate)	20.5 cents
East Grand Forks to St. Paul (proposed rate)	19.0 "
Difference	1.5 "
HARD COAL	
Duluth to Wahpeton (tariff rate)	$2.10 per ton
Duluth to Breckenridge (proposed rate)	1.63 "
Difference	.47 "
SOFT COAL	
Duluth to Wahpeton (tariff rate)	$2.00 per ton
Duluth to Breckenridge (proposed rate)	1.31 "
Difference	.69 "
HARD COAL	
Duluth to Grand Forks (tariff rate)	$2.10 per ton
Duluth to East Grand Forks (proposed rate)	1.96 "
Difference	.14 "
SOFT COAL	
Duluth to Grand Forks (tariff rate)	$2.00 per ton
Duluth to East Grand Forks (proposed rate)	1.57 "
Difference	.43 "
WHEAT	
Wahpeton to Duluth (tariff rate)	11.5 cents
Breckenridge to Duluth (proposed rate)	10.0 "
Difference	1.5 "
COARSE GRAIN	
Wahpeton to St. Paul (tariff rate)	10.5 cents
Breckenridge to St. Paul (proposed rate)	8.8 "
Difference	1.7 "
COARSE GRAIN	
Wahpeton to Duluth (tariff rate)	11.5 cents
Breckenridge to Duluth (proposed rate)	8.8 "
Difference	2.7 "

Present rates named above are shown in the following tariffs:

Live stock	N. P.	273-A
Coal	N. P.	22210-Cor.
Wheat, Coarse grain	N. P.	21950

COMPLAINANT'S EXHIBIT 41. BAIRD.

Statement showing class and commodity rates in effect from St. Paul, Minneapolis, Duluth and Superior to Breckenridge, East Grand Forks and Moorhead, Minnesota, and the opposite stations in North Dakota, Wahpeton, Grand Forks and Fargo, prior to the order of the Minnesota Commission of September 1906, as compared with the prescribed rates in the Commission's orders of September 6th, 1906, covering class rates, and June 1st, 1907, covering carload articles named therein.

TO BRECKENRIDGE

From		1	2	3	4	5	A	B	C	D	E
St. Paul, Minneapolis, Duluth, Superior	Prior to 9-6-06. Tariff 18000	61	52	40	31	24	24	21	18	15	12
St. Paul, Minneapolis	After 9-6-06. Tariff 22500	51.2	42.7	34.1	25.6	20.5	23	17.9	15.4	12.8	10.2
Duluth, Superior	"	54.1	45.1	36.1	27.1	21.7	24	18.9	16.2	13.5	10.8

TO WAHPETON

		1	2	3	4	5	A	B	C	D	E
St. Paul, Minneapolis, Duluth, Superior	Prior to 9-6-06. Tariff 18000	61	52	40	31	24	24	21	18	15	12
St. Paul, Minneapolis	After 9-6-06. Tariff 22500	51.2	42.7	34.2	25.6	20.5	23	17.9	15.4	12.8	10.2
Duluth, Superior	"	54.1	45.1	36.1	27.1	21.7	24	18.9	16.2	13.5	10.8

TO EAST GRAND FORKS

		1	2	3	4	5	A	B	C	D	E
St. Paul, Minneapolis, Duluth, Superior	Prior to 9-6-06. Tariff 18000	67	57	44	34	27	27	23	20	16	13
St. Paul, Minneapolis	After 9-6-06. Tariff 22500	61	50.8	40.7	30.5	24.4	27	21.3	18.3	15.2	12.2
Duluth, Superior	"	60	50	40	30	24	27	21	18	15	12

TO GRAND FORKS

		1	2	3	4	5	A	B	C	D	E
St. Paul, Minneapolis, Duluth, Superior	Prior to 9-6-06. Tariff 18000	67	57	44	34	27	27	23	20	16	13
St. Paul, Minneapolis	After 9-6-06. Tariff 22500	61	50.8	40.7	30.5	24.4	27	21.3	18.3	15.2	12.2
Duluth, Superior	"	60	50	40	30	24	27	21	18	15	12

TO MOORHEAD

		1	2	3	4	5	A	B	C	D	E
St. Paul Minneapolis Duluth Superior	Prior to 9-6-06. Tariff 18000	67	57	44	34	27	27	23	20	16	13
St. Paul Minneapolis	After 9-6-06. Tariff 22500	54.1	45.1	36.1	27.1	21.7	24.4	18.9	16.2	13.5	10.8
Duluth Superior	-	55.1	45.9	36.7	27.6	22	24.8	19.3	16.5	13.8	11

TO FARGO

		1	2	3	4	5	A	B	C	D	E
St. Paul Minneapolis Duluth. Superior	Prior to 9-6-06. Tariff 18000	65	57	44	34	27	27	23	20	16	13
St. Paul Minneapolis	After 9-6-06. Tariff 22500	54.1	45.1	36.1	27.1	21.7	24.4	18.9	16.2	13.5	10.8
Duluth Superior	-	55.1	45.9	36.7	27.6	22	24.8	19.3	16.5	13.8	11

The order of September 6th, 1906, was subsequently extended to November 15th, 1906, and tariffs were changed on that date.

GROCERS' COMMODITIES

Rates in cents per 100 pounds

Commodities	From	To Breckenridge Whapeton	To East Grand Forks Grand Forks	To Moorhead Fargo
Cider, Vinegar, canned fruits, vegetables, catsup condensed milk, evaporated cream, pickles, sugar, syrup, molasses	St. Paul Minneapolis Duluth Superior	20-1/2	23-1/2	23-1/2
		Prior to June 1st, 1907, N. P. 21,810 (Amdt. 14 trf. 18000)		
	St. Paul Minneapolis Duluth	17.5	21.4	18.7
	Superior	18.7	21.8	19.1
		After June 1st, 1907, Supplement 6 tariff 22500		
Beans, dry in bags, canned sardines, coffee, cove oysters, rice.	St. Paul Minneapolis Duluth Superior	24	27	27
		Prior to June 1st, 1907 tariff 18000		
	St. Paul Minneapolis Duluth	17.5	21.4	18.7
	Superior	18.7	21.8	19.1
		After June 1st, 1907, Supplement 6 tariff 22500		

COMPLAINANT'S EXHIBIT 42. BAIRD.

Statement showing the effect on rates from and to other points of a change in the rates to Butte, based on the Commission's rates extended beyond Minnesota to cover actual distance from Minneapolis to Butte.

Note: The rates applicable from St. Paul to Butte also apply from Minneapolis, Duluth, Minn., Superior, Wis., and from Sioux City, Iowa, Omaha, Nebraska and St. Joseph and Kansas City, Missouri, also from Tacoma, Seattle, Wash., Portland, Ore., San Francisco, Sacramento and Los Angeles, California, to the same point. The rates from Denver are 80 per cent of Missouri River-Butte rates.

The rates from Chicago to Ogden are the same as Chicago to Butte, and from Omaha to Ogden the rates are the Chicago rates less the locals Chicago to Omaha.

The rates from San Francisco to Ogden are 75 per cent of the Omaha to Ogden rates.

To Butte, Mont from		1	2	3	4	5	A	B	C	D	E
St. Paul.....	A	225	190	158	135	113	113	90	80	55	45
	B	105.1	87.6	70.1	52.6	42	47.3	36.8	31.5	26.3	21
Denver.....	A	180	152	126	108	90	90	72	64	44	36
	B	84.1	70.1	56.1	42.1	33.6	37.8	29.4	25.2	21	16.8
Chicago.....	A	285	240	198	160	133	138	110	97	69	58
	B	165.1	137.6	110.1	77.6	62	72.3	56.8	48.5	40.3	34
To Ogden, Utah. from		**1**	**2**	**3**	**4**	**5**	**A**	**B**	**C**	**D**	**E**
Chicago.....	A	285	240	198	160	133	138	110	97	69	58
	B	165.1	137.6	110.1	77.6	62	72.3	56.8	48.5	40.3	34
Omaha.....	A	205	175	153	128	106	106	83	75	50.5	42
	B	85.1	72.6	65.1	45.6	35	40.3	29.8	26.5	21.8	18
San Francisco.	A	154	131	115	96	79.5	79.5	62	56	38	31.5
	B	63.8	54.5	48.8	34.2	26.2	30.2	22.4	19.9	16.4	13.5

A-Present published rates.

B-Rates based on Commission's scale, St. Paul to Butte and between other points on the existing relation to Butte rates.

Tariff Reference.

From St. Paul and Chicago to Butte, Mont., N. P. 21800.
From Denver to Butte, Mont., C. B. & Q. 15235 of 1906.
From Chicago and Omaha to Ogden, Utah, Trans-Mo. F. B. 20-E.
From San Francisco to Ogden, Utah, So. Pac. 40-U., Supplement 17.

COMPLAINANT'S EXHIBIT 43. BAIRD.

Comparative Statement of Rates on Lumber (A) from Tacoma to points east of Thorpe, Washington, to and including St. Paul, as contained in Northern Pacific Tariffs 24,295 and 335-A, with (B) the Minnesota Legislative Rates on Lumber for equal distances in Minnesota, and if extended on the same basis for 1,900 miles.

Distance Miles.			
150	A	15	Hillside.
	B	10	
200	A	15	Mabton.
	B	11	
250	A	15	Pasco.
	B	11.8	
300	A	19	Cunningham.
	B	12.5	
350	A	19.5	Concord.
	B	13.2	
400	A	23	Yardley, Wash.
	B	13.7	
450	A	26	Cocolalla, Idaho.
	B	14.2	
500	A	29	Heron, Mont.
	B	14.7	
550	A	31	Thompson Falls.
	B	15.2	
600	A	33	McDonald.
	B	15.7	
650	A	34	DeSmet.
	B	16.2	
700	A	35	Hell Gate.
	B	16.7	
750	A	35	Elliston.
	B	17.2	
800	A	35	Winston.
	B	17.7	
850	A	35	Logan.
	B	18.2	
900	A	35	Livingston.
	B	18.7	
950	A	35	Grey Cliff.
	B	19.2	
1000	A	35	Laurel.
	B	19.7	
1050	A	35	Bull Mt.
	B	20.2	
1100	A	35	Finch.
	B	20.7	
1150	A	35	Horton.
	B	21.2	
1200	A	35	Terry.
	B	21.7	
1250	A	40	Allard.
	B	22.2	
1300	A	40	Waldon.
	B	22.7	
1350	A	40	Lehigh.
	B	23.2	
1400	A	40	Glenullen.
	B	23.7	
1450	A	40	Marmot.
	B	24.2	

COMPLAINANT'S EXHIBIT 43. BAIRD.—*Cont.*

Distance Miles.			
1500	A	40	Geneva.
	B	24.7	
1550	A	40	Oswego.
	B	25.2	
1600	A	40	Valley City.
	B	25.7	
1650	A	40	Haggart.
	B	26.2	
1700	A	44	Oak Lake.
	B	26.7	
1750	A	45	Wadena.
	B	27.2	
1800	A	45	Little Falls.
	B	27.7	
1850	A	45	Becker.
	B	28.2	
1900	A	45	Minn. Transfer.
	B	28.7	

Average rate A—34.1.
Average rate B—19.8.

Based on Legislative Scale, the reduction in rate from Puget Sound to Minnesota Transfer and other eastern terminals is equivalent to 36 per cent, and to all points named 42 per cent of present rate.

Comparative Statement of Rates on Shingles (A) from Tacoma to points east of Thorpe, Washington, to and including St. Paul, as contained in Northern Pacific Tariffs 24,295 and 335-A, with (B) the Minnesota Legislative Rates on Shingles for equal distances in Minnesota, and if extended on the same basis for 1,900 miles.

Distance Miles.			
150	A	15	Hillside.
	B	10	
200	A	15	Mabton.
	B	11	
250	A	15	Pasco.
	B	11.8	
300	A	19	Cunningham.
	B	12.5	
350	A	19.5	Concord.
	B	13.2	
400	A	23	Yardley, Wash.
	B	13.7	
450	A	28	Coeolalla.
	B	14.2	
500	A	32	Heron.
	B	14.7	
550	A	34	Thompson Falls.
	B	15.2	
600	A	36	McDonald.
	B	15.7	
650	A	37	DeSmet.
	B	16.2	
700	A	40	Hell Gate.
	B	16.7	
750	A	40	Elliston.
	B	17.2	
800	A	41	Winston.
	B	17.7	
850	A	41	Logan.
	B	18.2	
900	A	42	Livingston.
	B	18.7	
950	A	43	Grey Cliff.
	B	19.2	
1000	A	43	Laurel.
	B	19.7	
1050	A	44	Bull Mt.
	B	20.2	
1100	A	44	Finch.
	B	20.7	
1150	A	45	Horton.
	B	21.2	
1200	A	45	Terry.
	B	21.7	
1250	A	50	Allard.
	B	22.2	
1300	A	50	Waldon.
	B	22.7	
1350	A	50	Lehigh.
	B	23.2	
1400	A	50	Glenullen.
	B	23.7	
1450	A	50	Marmot.
	B	24.2	

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COMPLAINANT'S EXHIBIT 43. BAIRD.—*Cont.*

Distance Miles			
1500	A	50	Geneva.
	B	24.7	
1550	A	50	Oswego.
	B	25.2	
1600	A	50	Valley City.
	B	25.7	
1650	A	50	Haggart.
	B	26.2	
1700	A	54	Oak Lake.
	B	26.7	
1750	A	55	Wadena.
	B	27.2	
1800	A	55	Little Falls.
	B	27.7	
1850	A	55	Becker.
	B	28.2	
1900	A	55	Minn. Transfer.
	B	28.7	

COMPLAINANT'S EXHIBIT 44. BAIRD.

Statement showing Rates in Effect on Wheat, Flaxseed, Flour, etc.; also on Corn, Oats, Rye, Barley, etc., to Minneapolis, as follows:

A In effect September 1st, 1905.

B Present Rates.

C What they would be from Minnesota points on the basis of the Legislative Rates, and from points beyond if same basis as applied in that schedule for distances of 300 to 400 miles was extended to 1,500 miles.

Distance			Wheat	Coarse Grain	Tariff Authority
50	Clear Lake.....Minn. (53.3)	A	7	7	18880
		B	7	7	21950
		C	5.7	5	
100	Darling..... " (101.1)	A	9	9	18880
		B	8	8	21950
		C	7.8	7	
150	Wadena Jct..... " (150)	A	10.5	10.5	18880
		B	9.5	9.5	21950
		C	8.7	7.6	
200	Audubon..... " (198.8)	A	11	11	18880
		B	10	10	21950
		C	9.6	8.4	
250	Mapleton.....N. D. (252.7)	A	12	12	18880
		B	11.5	11.5	21950
		C	10.2	8.9	
300	Berea..... " (302.1)	A	13.5	13.5	18880
		B	13	13	21950
		C	10.9	9.6	
350	Cleveland..... " (352)	A	15	15	18880
		B	15	15	21950
		C	11.4	10	
400	Driscoll..... " (401).	A	16	16	18880
		B	16	16	21950
		C	12	10.6	
450	Marmot..... " (447.8)	A	17	17	18880
		B	17	17	21950
		C	12.6	11.1	
500	Eagles Nest..... " (502.4)	A	18	18	18880
		B	18	18	21950
		C	13.1	11.6	
550	Dickinson..... " (549.4)	A	19	19	18880
		B	19	19	21950
		C	13.7	12.1	
600	De Mores..... " (600)	A	20.5	20.5	18880
		B	20.5	20.5	21950
		C	14.2	12.6	
650	Curry.....Mont. (649.9)	A	27.5	27.5	18880 & 14275 Comb. on Beach
		B	25	25	24125
		C	14.8	13.1	
700	Kamm..... " (698.7)	A	31	31	18880 & 14275 Comb. on Beach
		B	29	29	24125
		C	15.3	13.6	

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COMPLAINANT'S EXHIBIT 44. BAIRD.—*Cont.*

Distance				Wheat	Coarse Grain	Tariff Authority
750	Horton..... Mont. (744.3)		A	34.5	34.5	18890 & 14275 Comb. on Beach
			B	31	31	24125
			C	15.9	14.1	
800	Sanders..... " (799.9)		A	35	35	14586
			B	31	31	24125
			C	16.4	14.6	
850	Pompey's Pillar " (849.5)		A	35	35	14586
			B	32	32	24125
			C	17	15.1	
900	Laurel..... " (896.5)		A	35	35	14586
			B	32	32	24125
			C	17.5	15.6	
950	Grey Cliff..... " (950.9)		A	35	35	14586
			B	32	32	24125
			C	18.1	16.1	
1000	Livingston..... " (996.1)		A	35	35	14586
			B	35	35	24125
			C	18.6	16.6	
1050	Gallatin..... " (1,049.4)		A	40	40	14586
			B	37	37	24125
			C	19.2	17.1	
1100	Winston..... " (1,099)		A	45 16375	48	14586 & 14275 Comb. on Lombard
			B	43	43	24125
			C	19.7	17.6	
1150	Elliston..... " (1,048.1)		A	45 16375	51	14586 & 14275 Comb. on Lombard
			B	45	45 oats 48	24125
			C	20.3	18.1	
1200	Hell Gate..... " (1,196.9)		A	45	53.5	16375
			B	45	45 oats 48	24125
			C	20.8	18.6	
1250	De Smet..... " (1,248.4)		A	45	53.5	16375
			B	46	46 oats 50	24125
			C	21.4	19.1	
1300	Perma..... " (1,301.4)		A	45	53.5	16375
			B	49	49 oats 50	24125
			C	21.9	19.6	
1350	Bellrap..... " (1,351.9)		A	45	53.5	16375
			B	50	50	24125
			C	22.5	20.1	
1400	Cabinet..... Idaho (1,399.4)		A	45	53.5	16375
			B	50	50	24125
			C	23	20.6	
1450	Thompson..... " (1,450.5)		A	45	53.5	16375
			B	50	50	24125
			C	23.6	21.1	
1500	Spokane..... Wash. (1,504.4)		A	45	53.5	16375
			B	50	50	11-A
			C	24.1	21.6	

COMPLAINANT'S EXHIBIT 45. BAIRD.

Statement showing a Comparison of the Rates per 100 lbs. contained in (A) Distance Tariff in effect in Montana, Idaho and Washington; (B) in Tariffs from Eastern Terminals to points in Minnesota, North Dakota, Montana, Idaho and Washington in effect prior to Nov. 15th, 1906 (C) in Tariffs from Eastern Terminals to same points in effect Nov. 15th, 1906, with (D) the Rates ordered by the Minnesota Commission as they would be if extended beyond the Minnesota State Line on the same basis as for Minnesota.

Tariff Authority.

November 15th, 1906.	Prior Nov. 15th, 1906.
Minnesota, 22500	Minnesota, 18000
North Dakota, 22500	North Dakota, 18000
Montana, 21800	Montana, 21800
Washington, 23500	Washington, 15500
Idaho, 21800	Idaho, 21800

Montana, Idaho and Washington Distance Tariff, 22506

Miles			Av'ge Rate	1	2	3	4	5	A	B	C	D	E
50	Becker.....Minn.	"A"	21.2	40	34	28	24	20	20	16	12	10	8
	(46.2)	"B"	14.8	30	26	20	15	12	12	11	9	7	6
		"C&D"	10.3	20.8	17.3	13.9	10.4	8.3	9.4	7.3	6.2	5.2	4.2
100	Darling..... "	"A"	32.9	60	51	42	36	30	30	24	18	15	12
	(101.1)	"B"	20.7	42	36	28	21	17	17	15	13	10	8
		"C&D"	15.2	30.6	25.5	20.4	15.3	12.2	13.8	10.7	9.2	7.7	6.1
150	Wadena Jct..... "	"A"	42.4	80	68	56	48	40	40	32	24	20	16
	(150)	"B"	24.6	50	43	33	25	20	20	18	15	12	10
		"C&D"	20	40.4	33.7	26.9	20.2	16.2	18.2	14.1	12.1	10.1	8.1
200	Audubon..... "	"A"	53	100	85	70	60	50	50	40	30	25	20
	(199.8)	"B"	29.4	60	51	40	30	24	24	21	18	14	12
		"C&D"	24.0	50.2	41.8	33.5	25.1	20.1	22.6	17.6	15.1	12.6	10

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250	Fife..... N. D. (247.5)	"A"	63.6	120	102	84	72	60	60	48	36	30	24
		"B"	34.4	70	60	48	35	28	28	25	21	17	14
		"C"	28.3	57	48	38	30	23	23	20	17	14	11
		"D"	27.3	55.1	45.9	36.7	27.6	22	24.8	19.3	16.5	13.8	11
300	Valley City..... " (297.1)	"A"	74.2	140	119	98	84	70	70	56	42	35	28
		"B"	38.9	79	67	52	40	32	32	28	24	19	16
		"C"	34.8	70	58	47	35	28	32	25	21	18	14
		"D"	29.2	60	50	40	30	24	27	21	18	15	12
350	Windsor..... " (348.2)	"A"	79.6	150	128	105	90	75	75	60	45	38	30
		"B"	43.8	89	76	59	45	36	36	31	27	21	18
		"C"	39.6	80	67	53	40	32	36	28	24	20	16
		"D"	32.1	64.9	54.1	43.3	22.5	26	29.2	22.7	19.5	16.2	13
400	Geneva..... " (398.1)	"A"	84.8	160	136	112	96	80	80	64	48	40	32
		"B"	47.8	96	83	64	49	39	39	34	30	24	20
		"C"	45.3	92	77	61	46	37	39	32	28	23	18
		"D"	34.5	69.8	58.2	46.8	34.9	27.9	31.3	24.4	20.9	17.5	13.9
450	Lyons..... " (446.8)	"A"	90.2	170	145	119	102	85	85	68	51	43	34
		"B&C"	52.6	104	89	71	55	44	43	38	33	27	22
500	Glenullen..... " (496)	"A"	95.4	180	153	126	108	90	90	72	54	45	36
		"B&C"	60.6	117	100	80	65	52	58	45	39	31	27
		"D"	36.9	74.7	62.3	49.3	37.4	29.9	33.6	26.1	22.4	18.7	14.9
550	Dickinson..... " (549.4)	"A"	100.8	190	162	133	114	95	95	76	57	48	38
		"B&C"	67.3	127	108	88	73	60	56	50	44	36	31
600	Devores..... " (600)	"A"	106	200	170	140	120	100	100	80	60	50	40
		"B&C"	73.8	136	116	95	81	68	63	54	49	41	35
		"D"	39.3	79.6	66.4	52.1	39.9	31.9	35.9	27.8	23.9	19.9	15.9
650	Curry..... Mont. (649.9)	"A"	111.4	210	179	147	126	105	105	84	63	53	42
		"B&C"	80.8	148	126	104	89	74	74	59	52	45	37

COMPLAINANT'S EXHIBIT, 45. BAIRD.—*Cont.*

Miles			Av'ge Rate	1	2	3	4	5	A	B	C	D	E
700	Kamm.....Mont.	"A"	116.6	220	187	154	132	110	110	88	66	55	44
	(698.7)	"B&C"	86.4	159	135	111	95	80	80	64	56	46	38
		"D"	41.7	84.5	70.5	54.9	42.4	33.9	38.2	29.5	25.4	21.1	16.9
750	Horton..... "	"A"	122	230	196	161	138	115	115	92	69	58	46
	(744.3)	"B&C"	90.6	167	142	117	100	84	84	67	58	48	39
800	Sanders..... "	"A"	127.2	240	204	168	144	120	120	96	72	60	48
	(799.9)	"B&C"	96.1	178	151	125	107	89	89	71	62	49	40
		"D"	44.1	89.4	74.6	57.7	44.9	35.9	40.5	31.2	26.9	22.3	17.9
850	Pompey's Pillar..... "	"A"	132.6	250	213	175	150	125	125	100	75	63	50
	(849.5)	"B&C"	101.7	189	161	132	113	95	95	76	66	50	40
900	Laurel..... "	"A"	137.8	260	221	182	156	130	130	104	78	65	52
	(896.5)	"B&C"	106	198	168	139	119	99	99	79	69	50	40
		"D"	46.5	94.3	78.7	60.5	47.4	37.9	42.8	32.9	28.4	23.5	18.9
950	Grey Cliff..... "	"A"	143.2	270	230	189	162	135	135	108	81	68	54
	(950.9)	"B&C"	110.8	207	176	145	124	104	104	83	72	52	41
1000	Livingston..... "	"A"	148.4	280	238	196	168	140	140	112	84	70	56
	(996.1)	"B&C"	115.2	215	183	151	129	108	108	86	75	54	43
		"D"	48.9	99.2	82.8	63.3	49.9	39.9	45.1	34.6	29.9	24.7	19.9
1050	Gallatin..... "	"A"	153.8	290	247	203	174	145	145	116	87	73	58
	(1,049.4)	"B&C"	120.4	225	190	158	135	113	113	90	80	55	45
1100	Winston..... "	"A"	159	300	255	210	180	150	150	120	90	75	60
	(1,099)	"B&C"	120.4	225	190	158	135	113	113	90	80	55	45
		"D"	51.3	104.1	86.9	66.1	52.4	41.9	47.4	36.3	31.4	25.9	20.9
1150	Elliston..... "	"B&C"	120.4	225	190	158	135	113	113	90	80	55	45
	(1,149.5)												

CHARTS

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1200	Hell Gate..... (1,196.9)	"	"B&C"	123.2	230	196	161	138	115	115	92	81	58	46
			"D"	53.7	109	91	68.9	54.9	43.9	49.7	38	32.9	27.1	21.9
1250	De Smet..... (1,248.4)	"	"B&C"	128.4	240	204	168	144	120	120	96	84	60	48
1300	Perma..... (1,301.4)	"	"B&C"	132.8	248	211	174	149	124	124	99	87	62	50
			"D"	56.1	113.9	95.1	71.7	57.4	45.9	52	39.7	34.4	28.3	22.9
1350	Belknap..... (1,351.9)	"	"B&C"	137.4	257	218	180	154	129	129	103	89	64	51
1400	Cabinet..... (1,399.4)	Idaho	"B&C"	147.8	275	234	192	165	138	138	110	95	73	58
			"D"	58.5	118.8	99.2	74.5	59.9	47.9	54.3	41.4	35.9	29.5	23.9
1450	Thompson..... (1,450.5)	"	"B&C"	162.6	297	256	216	185	149	145	121	100	88	69
1500	Spokane..... (1,504.4)	Wash.	"B&C"	167	300	260	220	190	150	145	125	100	95	85
			"D"	60.9	123.7	103.3	77.3	62.4	49.9	56.6	43.1	37.4	30.7	24.9

COMPLAINANT'S EXHIBIT 46. BAIRD.

Statement showing present rates from Eastern Terminals to a number of the Principal Stations West of Minnesota, the proportion accruing to Line in Minnesota as compared with the Commission Rates for same distance; also showing what the Through Rates would be to same stations based on Commission's Schedule extended beyond 500 miles, and the Minnesota proportion of same.

Between St. Paul and	Miles	Class	Rate	Minnesota Proportion Based on 248 miles	One-half the rate for 500 miles Prescribed by Comm'n. order	Rate Fixed by Order for 250 miles	Minn. Schedule Extended to cover actual Distance	Minnesota Proportion for 248 miles
				45%				
Dickinson, N. D.	550	1st	1.27	57	37.36	55.12	77.2	34.7
		2nd	1.08	48.6	31.13	45.93	64.3	28.9
		3rd	.88	39.6	24.61	36.74	51.5	23.2
		4th	.71	32.	18.78	27.56	38.6	17.4
		5th	.52.5	23.6	14.95	22.05	30.9	13.9
		A	.56	25.2	16.81	24.80	34.7	15.7
		B	.49	22.	13.08	19.29	27.	12.2
		C	.42	19.	11.21	16.54	23.2	10.4
		D	.34.5	15.5	9.34	13.78	19.3	8.7
		E	.28	12.6	7.47	11.00	15.4	6.8
			Average Reduction 41.7%					
				37.3%				
Glendive, Mont.	665	1st	1.49	55.6	37.36	55.12	83.8	31.3
		2nd	1.27	47.4	31.13	45.93	69.8	26.
		3rd	1.04	38.8	24.61	36.74	55.9	20.8
		4th	.89	33.2	18.78	27.56	41.9	15.6
		5th	.75	28.	14.95	22.05	33.5	12.5
		A	.75	28.	16.81	24.80	37.7	14.
		B	.60	22.4	13.08	19.29	29.3	10.9
		C	.52	19.4	11.21	16.54	25.1	9.4
		D	.45	16.8	9.34	13.78	21.	7.8
		E	.37	13.8	7.47	11.00	16.8	6.3
			Average Reduction 49%					

				33.3%				
Miles City	743	1st	1.65	55.	37.36	55.12	86.1	28.7
		2nd	1.40	46.7	31.13	45.93	71.8	23.9
		3rd	1.16	38.6	24.61	36.74	57.4	19.1
		4th	.99	33.	18.78	27.56	43.1	14.4
		5th	.83	27.6	14.95	22.05	34.4	11.5
		A	.83	27.6	16.81	24.80	38.7	12.9
		B	.66	22.	13.08	19.29	30.1	10.3
		C	.58	19.3	11.21	16.54	25.8	8.6
		D	.47	15.6	9.34	13.78	21.5	7.2
		E	.39	13.	7.47	11.00	17.2	5.7
				Average Reduction 52.4%				
				27.8%				
Billings, Mont	890	1st	1.95	54.2	37.36	55.12	93.3	25.9
		2nd	1.65	45.9	31.13	45.93	77.8	21.6
		3rd	1.35	37.5	24.61	36.74	62.2	17.3
		4th	1.17	32.5	18.78	27.56	46.7	13.
		5th	.98	27.4	14.95	22.05	37.3	10.4
		A	.98	27.4	16.81	24.80	42.	11.7
		B	.78	21.7	13.08	19.29	32.7	9.1
		C	.68	18.9	11.21	16.54	28.	7.8
		D	.50	13.9	9.34	13.78	23.3	6.5
		E	.40	11.1	7.47	11.00	18.7	5.2
				Average Reduction 55.7%				
				24.6%				
Livingston, Mont	1,006	1st	2.15	52.9	37.36	55.12	99.2	24.4
		2nd	1.83	45.	31.13	45.93	82.7	20.3
		3rd	1.51	37.	24.61	36.74	66.1	16.3
		4th	1.29	31.7	18.78	27.56	49.6	12.2

*COMPLAINANT'S EXHIBIT 46. BAIRD.—*Cont.*

Between St. Paul and	Miles	Class	Rate	Minnesota Proportion Based on 248 miles	One-half the rate for 500 miles Prescribed by Comm'n. Order	Rate fixed by Order for 250 miles	Minn. Schedule Extended to Cover Actual Distance	Minnesota Proportion for 248 miles
		5th	1.08	26.6	14.95	22.05	39.7	9.8
		A	1.08	26.6	16.81	24.80	44.6	11.
		B	.86	21.1	13.08	19.29	34.7	8.5
		C	.75	18.4	11.21	16.54	29.8	7.3
		D	.54	13.3	9.34	13.78	24.8	6.1
		E	.43	10.6	7.47	11.00	19.8	4.9
				Average Reduction 57.3%				
				21.9%				
Helena and Butte, Mont.	1,129	1st	2.25	49.3	37.36	55.12	105.1	23.
		2nd	1.90	40.9	31.13	45.93	87.6	19.2
		3rd	1.58	34.6	24.61	36.74	70.1	15.3
		4th	1.35	29.6	18.78	27.56	52.6	11.5
		5th	1.13	24.7	14.95	22.05	42.	9.2
		A	1.13	24.7	16.81	24.80	47.3	10.4
		B	.90	19.7	13.08	19.29	36.8	8.
		C	.80	17.5	11.21	16.54	31.5	6.9
		D	.55	12.	9.34	13.78	26.3	5.8
		E	.45	9.9	7.47	11.00	21.	4.6
				Average Reduction 56.7%				
				19.7%				
Missoula, Mont.	1,253	1st	2.36	46.5	37.36	55.12	111.	21.9
		2nd	2.01	39.6	31.13	45.93	92.5	18.2
		3rd	1.65	32.5	24.61	36.74	74.	14.6
		4th	1.42	28.	18.78	27.56	55.5	10.9
		5th	1.18	23.2	14.95	22.05	44.4	8.7

		A	1.18	23.2	16.81	24.80	50.	9.8
		B	.94	18.5	13.08	19.29	38.9	7.7
		C	.83	16.3	11.21	16.54	33.3	6.6
		D	.59	11.6	9.34	13.78	27.8	5.5
		E	.47	9.3	7.47	11.00	22.2	4.4
		Average Reduction 56.4%						
				16.4%				
Spokane, Wash.	1,510	1st	3.00	49.2	37.36	55.12	123.7	20.3
		2nd	2.60	42.6	31.13	45.93	103.1	16.9
		3rd	2.20	36.1	24.61	36.74	82.5	13.4
		4th	1.90	31.2	18.78	27.56	61.9	10.1
		5th	1.50	24.6	14.95	22.05	49.5	8.1
		A	1.45	23.8	16.81	24.80	55.7	9.1
		B	1.25	20.5	13.08	19.29	43.3	7.
		C	1.00	16.4	11.21	16.54	37.1	6.1
		D	.95	15.6	9.34	13.78	30.9	5.1
		E	.85	13.9	7.47	11.00	24.7	4.1
		Average Reduction 63.3%						

COMPLAINANT'S EXHIBIT 47. BAIRD

Nor. Pac. Ry. No. 24677.
Supersedes No. 24475.

NORTHERN PACIFIC RAILWAY COMPANY.

LOCAL FREIGHT TARIFF.

Naming

CLASS AND COMMODITY RATES

Between

St. Paul, Minnesota Transfer, Minneapolis, Stillwater, Cloquet, Duluth, West Duluth, Minn., Nettleton Ave. (Superior), Central Ave. (Superior), or Superior, Wis.

And

Stations in North Dakota.

(Except Fargo, Wahpeton and Grand Forks.)

GOVERNED BY WESTERN CLASSIFICATION No. 44 (I. C. C. No. 2).

Issued April 20, 1908.

Takes effect May 25, 1908.

APPLICATION OF RATES.

Group Rates as shown on Pages 12 to 21, inclusive, will apply from and to the following points:

GROUP 1.

St. Paul	Minn.	Minneapolis	Minn.	Minnesota Transfer	Minn.

GROUP 2.

*Oak Park	Minn.	Stillwater	Minn.	*South Stillwater	Minn.
		White Bear	"		

GROUP 3.

*Barker	Minn.	New Duluth	Minn.	Superior	Wis.
Carlton	"	*Oneota	"	*Thomson	Minn.
Central Ave. (Superior)	Wis.	*Pokegama	Wis.	20th Avenue (Duluth)	"
Cloquet	Minn.	*St. Louis	"	*Walbridge	Wis.
Duluth	"	Scanlon	Minn.	West Duluth	Minn.
Fond du Lac	"	*Short Line Park	"	*West Duluth Jct.	"
*Howell	"	*Smithville	"	Wrenshall	"
Nettleton Ave. (Superior)	Wis.	*Spirit Lake	"		

Issued by J. B. BAIRD,
General Freight Agent,
St. Paul, Minn.

Index No.	BETWEEN	AND (For stations in each group see page 4.)	CLASSES. Rates in cents per 100 lbs.									
			1	2	3	4	5	A	B	C	D	E
1	*Stevensons..N. D.	Group 1	52. 62.	43. 53.	35. 41.	26. 31.	21. 25.	23. 25.	18. 22.	16. 19.	13. 15.	10.5 12.
		" 2	56.	47.	37.	28.	22.	25.	20.	17.	14.	11.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
2	Farmington.. "	Group 1	53. 63.	44. 54.	35. 42.	27. 32.	21. 25.	24. 25.	19. 22.	16. 19.	13. 15.	11. 13.
		" 2	56.	47.	37.	28.	22.	25.	20.	17.	14.	11.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
3	*Fairview Jct. "	Group 1	53. 63.	44. 54.	35. 42.	27. 32.	21. 25.	24. 25.	19. 22.	16. 19.	13. 15.	11. 13.
		" 2	57.	48.	38.	29.	23.	25.	20.	17.	14.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
4	*Adams.....N. D.	Group 1	54. 63.	45. 54.	36. 42.	27. 32.	22. 25.	24. 25.	19. 22.	16. 19.	14. 15.	11. 13.
		" 2	58.	48.	39.	29.	23.	25.	20.	17.	15.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
5	*Woodruff... "	Group 1	54. 63.	45. 54.	36. 42.	27. 32.	22. 25.	24. 25.	19. 22.	16. 19.	14. 15.	11. 13.
		" 2	58.	48.	39.	29.	23.	25.	20.	17.	15.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
6	*Van Pelts... "	Group 1	54. 63.	45. 54.	36. 42.	27. 32.	22. 25.	24. 25.	19. 22.	16. 19.	14. 15.	11. 13.
		" 2	58.	48.	39.	29.	23.	25.	20.	17.	15.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
7	*Keystone Jct. "	Group 1	54. 63.	45. 54.	36. 42.	27. 32.	22. 25.	24. 25.	19. 22.	16. 19.	14. 15.	11. 13.
		" 2	58.	48.	39.	29.	23.	25.	20.	17.	15.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.
8	Great Bend.. "	Group 1	54. 63.	45. 54.	36. 42.	27. 32.	22. 25.	24. 25.	19. 22.	16. 19.	14. 15.	11. 13.
		" 2	58.	48.	39.	29.	23.	25.	20.	17.	15.	12.
		" 3	55.	46.	37.	28.	22.	25.	19.	17.	14.	11.

9	*Warner.....N. D.	Group 1	55.	64.	46.	54.	37.	42.	28.	32.	22.	26.	25.	26.	19.	22.	17.	19.	14.	15.	11.	13.
		" 2	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
		" 3	56.		47.		37.		28.		22.		25.		20.		17.		14.		11.	
10	*Bayne..... "	Group 1	55.		46.		37.		28.		22.		25.		19.		17.		14.		11.	
		" 2	58.	64.	48.	54.	39.	42.	29.	32.	23.	26.	26.	26.	20.	22.	17.	19.	15.	15.	12.	13.
		" 3	56.		47.		37.		28.		22.		25.		20.		17.		14.		11.	
11	*Downing....N. D.	Group 1	56.	64.	47.	54.	37.	42.	28.	32.	22.	26.	25.	26.	20.	22.	17.	19.	14.	15.	11.	13.
		" 2	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
		" 3	56.		47.		37.		28.		22.		25.		20.		17.		14.		11.	
12	Mooreton... "	Group 1	56.	64.	47.	54.	37.	42.	28.	32.	22.	26.	25.	26.	20.	22.	17.	19.	14.	15.	11.	13.
		" 2	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
		" 3	56.		47.		37.		28.		22.		25.		20.		17.		14.		11.	
13	Barney..... "	Group 1	57.	64.	48.	54.	38.	42.	29.	32.	23.	26.	26.		20.	22.	17.	19.	14.	15.	12.	13.
		" 2	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
		" 3	57.		48.		38.		29.		23.		26.		20.		17.		14.		12.	
14	Wyndmere.. "	Group 1	58.	66.	48.	56.	39.	44.	29.	33.	23.	26.	26.		20.	23.	17.	20.	15.	16.	12.	13.
		" 2	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
		" 3	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
15	*Star Lake... "	Group 1	59.	67.	49.	57.	39.	44.	30.	34.	24.	27.	27.		21.	23.	18.	20.	15.	16.	12.	13.
		" 2	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
		" 3	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
16	Delamere... "	Group 1	60.	68.	50.	58.	40.	45.	30.	34.	24.	27.	27.		21.	24.	18.	20.	15.	16.	12.	14.
		" 2	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
		" 3	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
17	Milnor..... "	Group 1	61.	69.	51.	59.	41.	46.	31.	35.	24.	28.	27.	28.	21.	24.	18.	21.	15.	17.	12.	14.
		" 2	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	
		" 3	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	

*No Agent. (See Rule 50, Page 11.)

COMPLAINANT'S EXHIBIT 47. BAIRD.—*Cont.*

Index No	BETWEEN	AND- (For stations in each group see page 4.)	CLASSES. Rates in cents per 100 lbs. 1	2	3	4	5	A	B	C	D	E
18	*Hove.....N. D.	Group 1	62. 69.	52. 59.	41. 46.	31. 35.	25. 28.	28.	22. 24.	19. 21.	16. 17.	12. 14.
		" 2	62.	52.	41.	31.	25.	28.	22.	19.	16.	12.
		" 3	62.	52.	41.	31.	25.	28.	22.	19.	16.	12.
19	Gwinner.... "	Group 1	64. 71.	53. 60.	43. 47.	32. 36.	26. 28.	28.	22. 25.	19. 21.	16. 17.	13. 14.
		" 2	64.	53.	43.	32.	26.	28.	22.	19.	16.	13.
		" 3	64.	53.	43.	32.	26.	28.	22.	19.	16.	13.
20	Stirum..... "	Group 1	66. 72.	55. 61.	44. 48.	33. 36.	26. 29.	29.	23. 25.	20. 22.	17.	13. 14.
		" 2	66.	55.	44.	33.	26.	29.	23.	20.	17.	13.
		" 3	66.	55.	44.	33.	26.	29.	23.	20.	17.	13.
21	Crete..... "	Group 1	69. 74.	57. 63.	46. 49.	35. 37.	28. 30.	29. 30.	24. 26.	21. 22.	17. 18.	14. 15.
		" 2	69.	57.	46.	35.	28.	29.	24.	21.	17.	14.
		" 3	69.	57.	46.	35.	28.	29.	24.	21.	17.	14.
22	*Janet..... "	Group 1	71. 75.	59. 64.	47. 50.	36. 38.	28. 30.	29. 30.	25. 26.	21. 23.	18.	14. 15.
		" 2	71.	59.	47.	36.	28.	29.	25.	21.	18.	14.
		" 3	71.	59.	47.	36.	28.	29.	25.	21.	18.	14.
23	Oakes..... "	Group 1	73. 77.	61. 65.	48. 51.	37. 39.	29. 31.	30. 31.	26. 27.	22. 23.	18.	15.
		" 2	73.	61.	48.	37.	29.	30.	26.	22.	18.	15.
		" 3	73.	61.	48.	37.	29.	30.	26.	22.	18.	15.
24	Glover..... "	Group 1	73. 79.	61. 67.	48. 52.	37. 40.	29. 32.	30. 32.	26. 28.	22. 24.	18. 19.	15. 16.
		" 2	73.	61.	48.	37.	29.	30.	26.	22.	18.	15.
		" 3	73.	61.	48.	37.	29.	30.	26.	22.	18.	15.
25	*Bolack.....N. D.	Group 1	62. 70.	52. 60.	41. 46.	31. 35.	25. 28.	28.	22. 25.	19. 21	16. 17	12. 14.
		" 2	64.	53.	43.	32.	26.	29.	22.	19.	16.	13.
		" 3	62.	52.	41.	31.	25.	28.	22.	19.	16.	12.

26	*Kelly's.....	"	Group 1	64.	70.	53.	60.	43.	46.	32.	35.	26.	28.	29.	28.	22.	25.	19.	21.	16.	17.	13.	14.
			" 2	64.		53.		43.		32.		26.		29.		22.		19.		16.		13.	
			" 3	64.		53.		43.		32.		26.		29.		22.		19.		16.		13.	
27	Meckinock..	"	Group 1	66.	72.	55.	61.	44.	48.	33.	36.	26.	29.	30.	29.	23.	25.	20.	22.	17.		13.	14.
			" 2	66.		55.		44.		33.		26.		30.		23.		20.		17.		13.	
			" 3	66.		55.		44.		33.		26.		30.		23.		20.		17.		13.	
28	Honeyford..	"	Group 1	67.	73.	56.	62.	45.	48.	34.	37.	27.	29.	30.	29.	23.	26.	20.	22.	17.	18.	13.	15.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
29	Gilby.....	"	Group 1	67.	74.	56.	63.	45.	49.	34.	37.	27.	30.	30.		23.	26.	20.	22.	17.	18.	13.	15.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
30	Johnstown..	"	Group 1	67.	75.	56.	64.	45.	50.	34.	38.	27.	30.	30.		23.	26.	20.	23.	17.	18.	13.	15.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
31	Forest River	"	Group 1	67.	76.	56.	65.	45.	50.	34.	38.	27.	30.	30.		23.	27.	20.	23.	17.	18.	13.	15.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
32	Voss.....	"	Group 1	67.	77.	56.	65.	45.	51.	34.	39.	27.	31.	30.	31.	23.	27.	20.	23.	17.	18.	13.	15.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
33	*Kellogg.....	"	Group 1	67.	79.	56.	67.	45.	52.	34.	40.	27.	32.	30.	32.	23.	28.	20.	24.	17.	19.	13.	16.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
34	Grafton.....	"	Group 1	67.	79.	56.	67.	45.	52.	34.	40.	27.	32.	30.	32.	23.	28.	20.	24.	17.	19.	13.	16.
			" 2	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	
			" 3	67.		56.		45.		34.		27.		30.		23.		20.		17.		13.	

*No Agent. (See Rule 50, Page 11.)

Index No.	BETWEEN	AND (For stations in each group see page 4.)	CLASSES. Rates in cents per 100 lbs.									
			1	2	3	4	5	A	B	C	D	E
35	Cashel..... N.D.	Group 1	67. 81.	56. 69.	45. 53	34. 41.	27. 32.	30. 32.	23. 28.	20. 24.	17. 19.	13. 16.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
36	*Elora..... "	Group 1	67. 83.	56. 71.	45. 55.	34. 42.	27. 33.	30. 33.	23. 29.	20. 25.	17. 20.	13. 17.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
37	Drayton.... "	Group 1	67. 84.	56. 71.	45. 55.	34. 42.	27. 34.	30. 34.	23. 29.	20. 25.	17. 20.	13. 17.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
38	*Pittsburg... "	Group 1	67. 85.	56. 72.	45. 56.	34. 43.	27. 34.	30. 34.	23. 30.	20. 26.	17. 20.	13. 17.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
39	Bowesmont. "	Group 1	67. 87.	56. 74.	45. 57.	34. 44.	27. 35.	30. 35.	23. 30.	20. 26.	17. 21.	13. 18.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
40	Joliette..... "	Group 1	67. 88.	56. 75.	45. 58.	34. 44.	27. 35.	30. 35.	23. 31.	20. 26.	17. 21.	13. 18.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
41	*McArthur... "	Group 1	67. 89.	56. 76.	45. 59.	34. 45.	27. 36.	30. 36.	23. 31.	20. 27.	17. 21.	13. 18.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
42	Pembina.... "	Group 1	67. 91.	56. 77.	45. 60.	34. 46.	27. 36.	30. 36.	23. 32.	20. 27.	17. 22.	13. 18.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.

43	*Cotters.....	"	Group 1	55.	69.	46.	59.	37.	46.	28.	35.	22.	28.	25.	28.	19.	24.	17.	21.	14.	17.	11.	14.
			" 2	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
			" 3	57.		48.		38.		29.		23.		26.		20.		17.		14.		11.	
44	*Osgood.....	"	Group 1	56.	69.	47.	59.	37.	46.	28.	35.	22.	28.	25.	28.	20.	24.	17.	21.	14.	17.	11.	14.
			" 2	58.		48.		30.		29.		23.		26.		20.		17.		15.		12.	
			" 3	57.		48.		38.		29.		23.		26.		20.		17.		14.		11.	
45	Horsce.....	"	Group 1	57.	69.	48.	59.	38.	46.	29.	35.	23.	28.	26.	28.	20.	24.	17.	21.	14.	17.	11.	14.
			" 2	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
			" 3	57.		48.		38.		29.		23.		26.		20.		17.		14.		11.	
46	*Warren.....	"	Group 1	58.	69.	48.	59.	39.	46.	29.	35.	23.	28.	26.	28.	20.	24.	17.	21.	15.	17.	12.	14.
			" 2	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
			" 3	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
47	Davenport...	"	Group 1	58.	69.	48.	59.	39.	46.	29.	35.	23.	28.	26.	28.	20.	24.	17.	21.	15.	17.	12.	14.
			" 2	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
			" 3	58.		48.		39.		29.		23.		26.		20.		17.		15.		12.	
48	*Woods.....	"	Group 1	59.	70.	49.	60.	39.	46.	30.	35.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
			" 3	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
49	Leonard....	"	Group 1	61.	71.	51.	60.	41.	47.	31.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	
			" 3	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	
50	*Coburn.....	"	Group 1	62.	72.	52.	61.	41.	48.	31.	36.	25.	29.	28.	29.	22.	25.	19.	22.	16.	17.	12.	14.
			" 2	62.		52.		41.		31.		25.		28.		22.		19.		16.		12.	
			" 3	62.		52.		41.		31.		25.		28.		22.		19.		16.		12.	
51	Sheldon.....	"	Group 1	63.	72.	53.	61.	42.	48.	32.	36.	25.	29.	28.	29.	22.	25.	19.	22.	16.	17.	13.	14.
			" 2	63.		53.		42.		32.		25.		28.		22.		19.		16.		13.	
			" 3	63.		53.		42.		32.		25.		28.		22.		19.		16.		13.	

*No Agent. (See Rule 60, Page 11.)

Index No.	BETWEEN	AND (For stations in each group see page 4.)	CLASSES. Rates in cents per 100 lbs. 1	2	3	4	5	A	B	C	D	E
52	Buttaville... N. D.	Group 1	64. 72.	53. 61.	43. 48.	32. 36.	26. 29.	29.	22. 25.	19. 22.	16. 17.	13. 14.
		" 2	64.	53.	43.	32.	26.	29.	22.	19.	16.	13.
		" 3	64.	53.	43.	32.	26.	29.	22.	19.	16.	13.
53	Lisbon..... "	Group 1	65. 72.	54. 61.	43. 48.	33. 36.	26. 29.	29.	22. 25.	19. 22.	16. 17.	13. 14.
		" 2	65.	54.	43.	33.	26.	29.	22.	19.	16.	13.
		" 3	65.	54.	43.	33.	26.	29.	22.	19.	16.	13.
54	Elliott..... "	Group 1	67. 74.	56. 63.	45. 49.	34. 37.	27. 30.	30.	23. 26.	20. 22.	17. 18.	13. 15.
		" 2	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
		" 3	67.	56.	45.	34.	27.	30.	23.	20.	17.	13.
55	Englevale... "	Group 1	69. 76.	57. 65.	46. 50.	35. 38.	28. 30.	30.	24. 27.	21. 23.	17. 18.	14. 15.
		" 2	69.	57.	46.	35.	28.	30.	24.	21.	17.	14.
		" 3	69.	57.	46.	35.	28.	30.	24.	21.	17.	14.
56	Verona..... "	Group 1	71. 78.	59. 66.	47. 51.	36. 39.	28. 31.	30. 31.	25. 27.	21. 23.	18. 19.	14. 16.
		" 2	71.	59.	47.	36.	28.	30.	25.	21.	18.	14.
		" 3	71.	59.	47.	36.	28.	30.	25.	21.	18.	14.
57	*Oakes Jct... "	Group 1	73. 80.	61. 68.	49. 53.	37. 40.	29. 32.	30. 32.	26. 28.	22. 24.	18. 19.	15. 16.
		" 2	73.	61.	49.	37.	29.	30.	26.	22.	18.	15.
		" 3	73.	61.	49.	37.	29.	50.	26.	22.	18.	15.
58	La Moure... "	Group 1	75. 81.	63. 69.	50. 53.	38. 41.	30. 32.	31. 32.	26. 28.	22. 24.	19.	15. 16.
		" 2	75.	63.	50.	38.	30.	31.	26.	22.	19.	15.
		" 3	75.	63.	50.	38.	30.	31.	26.	22.	19.	15.
59	Berlin..... "	Group 1	77. 82.	66. 70.	51. 54.	39. 41.	31. 33.	31. 33.	27. 29.	23. 25.	19. 20.	15. 16.
		" 2	77.	66.	51.	39.	31.	31.	27.	23.	19.	15.
		" 3	77.	66.	51.	39.	31.	31.	27.	23.	19.	15.

| | | |

Index No.	BETWEEN	AND (For stations in each group see page 4.)	CLASSES. Rates in cents per 100 lbs. 1	2	3	4	5	A	B	C	D	E
69	Dickey..... N. D.	Group 1	77. 86.	64. 73.	51. 57.	38. 43.	31. 34.	34.	27. 30.	23. 26.	19. 21.	15. 17.
		" 2	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
		" 3	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
70	Adrian..... "	Group 1	77. 86.	64. 73.	51. 57.	38. 43.	31. 34.	34.	27. 30.	23. 30.	19. 21.	15. 17.
		" 2	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
		" 3	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
71	‡Montpelier.. "	Group 1	77. 86.	64. 73.	51. 57.	38. 43.	31. 34.	34.	27. 30.	23. 26.	19. 21.	15. 17.
		" 2	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
		" 3	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
72	‡Ypsilanti.... "	Group 1	77. 86.	64. 73.	51. 57.	38. 43.	31. 34.	34.	27. 30.	23. 26.	19. 21.	15. 17.
		" 2	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
		" 3	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
73	*‡Reeves Spur "	Group 1	77. 86.	64. 73.	51. 57.	38. 43.	31. 34.	34.	27. 30.	23. 26.	19. 21.	15. 17.
		" 2	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
		" 3	77.	64.	51.	38.	31.	34.	27.	23.	19.	15.
74	*Haggart....N. D.	Group 1	56. 69.	47. 59.	37. 46.	28. 35.	22. 28.	25. 28.	20. 24.	17. 21.	14. 17.	11. 14.
		" 2	58.	48.	39.	29.	23.	26.	20.	17.	15.	12.
		" 3	57.	48.	38.	29.	23.	26.	20.	17.	14.	11.
75	*Fife..... "	Group 1	57. 70.	48. 60.	38. 46.	29. 35.	23. 28.	26. 28.	20. 25.	17. 21.	14. 17.	11. 14.
		" 2	58.	48.	39.	29.	23.	26.	20.	17.	15.	12.
		" 3	57.	48.	38.	29.	23.	26.	20.	17.	14.	11.
76	Mapleton... "	Group 1	58. 70.	48. 60.	39. 46.	29. 35.	23. 28.	26. 28.	20. 25	17. 21	15. 17.	12. 14.
		" 2	59.	49.	39.	30.	24.	27.	21.	18.	15.	12.
		" 3	58.	48.	39.	29.	23.	26.	20.	17.	15.	12.

77	*Greene	"	Group 1	59.	70.	49.	60.	39.	46.	30.	35.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
			" 3	59.		49.		39.		30.		24.		27.		21.		18.		15.		12.	
78	*Dalrymple	"	Group 1	60.	71.	50.	60.	40.	47.	30.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
			" 3	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
79	Casselton	"	Group 1	60.	71.	50.	60.	40.	47.	30.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
			" 3	60.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
80	*Langers	N. D.	Group 1	61.	71.	50.	60.	40.	47.	30.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	61.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
			" 3	61.		50.		40.		30.		24.		27.		21.		18.		15.		12.	
81	*Persis	"	Group 1	61.	71.	51.	60.	41.	47.	31.	36.	24.	28.	27.	28.	21.	25.	18.	21.	12.	17.	12.	14.
			" 2	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	
			" 3	61.		51.		41.		31.		24.		27.		21.		18.		15.		12.	
82	*Myra	"	Group 1	62.	71.	52.	60.	41.	47.	31.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	62.		52.		41.		31.		24.		27.		21.		18.		15.		12.	
			" 3	62.		52.		41.		31.		24.		27.		21.		18.		15.		12.	
83	Emmden	"	Group 1	62.	71.	52.	60.	41.	47.	31.	36.	24.	28.	27.	28.	21.	25.	18.	21.	15.	17.	12.	14.
			" 2	62.		52.		41.		31.		24.		27.		21.		18.		15.		12.	
			" 3	62.		52.		41.		31.		24.		27.		21.		18.		15.		12.	
84	*Fabian	"	Group 1	63.	72.	53.	61.	42.	48.	32.	36.	25.	29.	28.	29.	22.	25.	19.	22.	16.	17.	12.	14.
			" 2	63.		53.		42.		32.		25.		28.		22.		19.		16.		12.	
			" 3	63.		53.		42.		32.		25.		28.		22.		19.		16.		12.	
85	Alice	"	Group 1	63.	73.	53.	62.	42.	48.	32.	37.	25.	29.	28.	29.	22.	26.	19.	22.	16.	18.	13.	15.
			" 2	63.		53.		42.		32.		25.		28.		22.		19.		16.		13.	
			" 3	63.		53.		42.		32.		25.		28.		22.		19.		16.		13.	

*No Agent. (See Rule 50, Page 11.)
‡Route via Jamestown, N. D.

Index No.	BETWEEN Groups 1, 2 and 3 (See page 4) AND	CLASSES. Rates in cents per 100 lbs.																			
		1		2		3		4		5		A		B		C		D		E	
86	*Elizabeth.....N. D.	64.	74.	53.	63.	43.	49.	33.	37.	26.	30.	29.	30.	22.	26.	19.	22.	16.	18.	13.	15.
87	Lucca..... "	65.	75.	54.	64.	43.	50.	33.	38.	26.	30.	29.	30.	23.	26.	20.	23.	16.	18.	13.	15.
88	Nome..... "	66.	75.	55.	64.	44.	50.	33.	38.	26.	30.	30.		23.	26.	20.	23.	17.	18.	13.	15.
89	*Eastedge..... "	67.	75.	56.	64.	45.	50.	34.	38.	27.	30.	30.		23.	26.	20.	23.	17.	18.	13.	15.
90	Kathryn..... "	69.	77.	57.	65.	46.	51.	35.	39.	28.	31.	31.		24.	27.	21.	23.	17.	18.	14.	15.
91	Hastings..... "	71.	79.	59.	67.	47.	52.	36.	40.	28.	32.	32.		25.	28.	21.	24.	18.	19.	14.	16.
92	Litchville..... "	72.	81.	60.	69.	48.	53.	36.	41.	28.	32.	33.	32.	25.	28.	22.	24.	18.	19.	14.	16.
93	Marion..... "	74.	83.	62.	71.	49.	55.	37.	42.	30.	33.	33.		26.	29.	22.	25.	19.	20.	15.	17.
94	*Glacis.....N. D.	61.	72.	51.	61.	41.	48.	31.	36.	24.	29.	27.	29.	21.	25.	18.	22.	15.	17.	12.	14.
95	Wheatland..... "	62.	72.	52.	61.	41.	48.	32.	36.	25.	29.	28.	29.	22.	25.	19.	22.	16.	17.	12.	14.
96	*Magnolia..... "	62.	73.	52.	62.	41.	48.	32.	36.	25.	29.	28.	29.	22.	26.	19.	22.	16.	18.	12.	15.
97	Buffalo..... "	63.	74.	53.	63.	43.	49.	33.	37.	25.	30.	28.	30.	22.	26.	19.	22.	16.	18.	13.	15.
98	Tower City..... "	65.	76.	54.	65.	43.	50.	33.	38.	26.	30.	29.	30.	22.	27.	19.	23.	16.	18.	13.	15.
99	*Brackett..... "																				
100	Oriska..... "																				
101	*Alta..... "	66.	77.	55.	65.	45.	51.	34.	39.	26.	31.	30.	31.	23.	27.	20.	23.	17.	18.	13.	15.
102	*Gorman..... "	68.	78.	57.	66.	45.	51.	35.	39.	27.	31.	31.		23.	27.	20.	23.	17.	19.	14.	16.
		69.	78.	57.	66.	46.	51.	35.	39.	28.	31.	31.		24.	27.	21.	23.	17.	19.	14.	16.

103	Valley City	"	70.	79.	58.	67.	47.	52.	35.	40.	28.	32.	32.		25.	28.	21.	24.	18.	19.	14.	16.
104	*Beres	"	71.	80.	59.	68.	47.	53.	36.	40.	28.	32.	32.		25.	28.	21.	24.	18.	19.	14.	16.
105	*Hobart	"	71.	80.	59.	68.	47.	53.	36.	40.	28.	32.	32.		25.	28.	21.	24.	18.	19.	14.	16.
106	Sanborn	"	72.	81.	60.	69.	48.	53.	36.	41.	29.	32.	32.		25.	28.	22.	24.	18.	19.	14.	16.
107	Rogers	N. D.	73.	83.	61.	71.	49.	55.	37.	42.	29.	33.	33.		26.	29.	22.	25.	18.	20.	15.	17.
108	Dazey	"	74.	84.	61.	71.	49.	55.	37.	42.	29.	34.	33.	34.	26.	29.	22.	25.	18.	20.	15.	17.
109	Walum	"	74.	84.	61.	71.	49.	55.	37.	42.	30.	34.	34.		27.	29.	23.	25.	19.	20.	15.	17.
110	Hannaford	"	74.	84.	61.	71.	49.	55.	38.	42.	30.	34.	34.		27.	29.	23.	25.	19.	20.	15.	17.
111	*Shephard	"	74.	84.	61.	71.	49.	55.	38.	42.	30.	34.	34.		27.	29.	23.	25.	19.	20.	15.	17.
112	Cooperstown	"	74.	84.	61.	71.	49.	55.	38.	42.	30.	34.	34.		27.	30.	23.	26.	19.	21.	15.	17.
113	*Lovell	"	76.	86.	63.	73.	51.	57.	39.	43.	30.	34.	34.		27.	31.	23.	26.	19.	21.	16.	18.
114	Jessie	"	78.	88.	65.	75.	52.	58.	40.	44.	31.	35.	35.		28.	32.	24.	27.	20.	22.	16.	18.
115	Binford	"	80.	90.	67.	77.	53.	59.	41.	45.	32.	36.	36.		29.	32.	25.	27.	20.	22.	16.	18.
116	*Mose	"	82.	91.	68.	77.	55.	60.	42.	46.	33.	36.	36.		29.	32.	25.	28.	21.	22.	17.	18.
117	McHenry	"	83.	92.	69.	78.	55.	61.	42.	46.	33.	37.	37.									
118	Eckelson	N. D.	73.	82.	61.	70.	48.	54.	36.	41.	29.	33.	33.		25.	29.	22.	25.	18.	20.	15.	16.
119	*Urbana	"	74.	83.	61.	71.	49.	55.	37.	42.	29.	33.	33.		26.	29.	22.	25.	18.	20.	15.	17.
120	Spiritwood	"	74.	83.	61.	71.	49.	55.	37.	42.	29.	33.	33.		26.	29.	22.	25.	18.	20.	15.	17.
121	*Bloom	"	76.	85.	63.	72.	51.	56.	38.	43.	30.	34.	34.		27.	30.	23.	26.	19.	20.	15.	17.
122	*Durum	"	77.		64.		51.		38.		31.		34.		27.		23.		19.		15.	
123	Jamestown	"	77.	86.	64.	73.	51.	57.	38.	43.	31.	34.	34.		27.	30.	23.	26.	19.	21.	15.	17.
124	*Parkhurst	N. D.	79.	87.	66.	74.	53.	57.	39.	44.	32.	35.	35.		28.	30.	24.	26.	20.	21.	16.	18.
125	Buchanan	"	80.	88.	67.	75.	53.	58.	40.	44.	32.	35.	35.		28.	31.	24.	26.	20.	21.	16.	18.
126	Pingree	"	81.	90.	67.	77.	54.	59.	40.	45.	32.	36.	36.		28.	32.	24.	27.	20.	22.	16.	18.
127	Edmunds	"	81.	90.	67.	77.	54.	59.	41.	45.	32.	36.	36.		28.	32.	24.	27.	20.	22.	16.	18.
128	Melville	"	83.	92.	69.	78.	55.	61.	42.	46.	33.	37.	37.		29.	32.	25.	28.	21.	22.	17.	18.
129	*Parquer Spur	"	84.	93.	70.	79.	56.	61.	42.	47.	34.	37.	37.		29.	33.	25.	28.	21.	22.	17.	19.
130	Carrington	"	85.	93.	71.	79.	57.	61.	43.	47.	34.	37.	37.		30.	33.	26.	28.	21.	22.	17.	19.
131	*Garland Spur	N. D.	87.	94.	72.	80.	58.	62.	44.	47.	35.	38.	38.		30.	33.	26.	28.	22.	23.	17.	19.
132	*Dover	"	87.	95.	72.	81.	58.	63.	44.	48.	35.	38.	38.		30.	33.	26.	29.	22.	23.	17.	19.
133	Sykeston	"	89.	96.	74.	82.	59.	63.	45.	48.	36.	38.	38.		31.	34.	27.	29.	22.	23.	18.	19.
134	Heaton	"	90.	97.	75.	83.	60.	65.	45.	50.	36.	38.	39.		31.	34.	27.	30.	22.	23.	18.	19.
135	Bowdon	"	92.	99.	77.	84.	61.	66.	46.	50.	37.	40.	40.		32.	35.	28.	30.	23.	24.	18.	20.
136	*Chaseley	"	94.	100.	78.	85.	63.	67.	47.	51.	38.	41.	40.		33.	35.	28.	30.	23.	25.	19.	20.
137	Hurdsfield	"	96.	101.	80.	86.	65.	68.	49.	52.	38.	41.	41.		34.	36.	29.	31.	24.	25.	19.	21.

*No Agent. (See Rule 50, Page 11.)

Line No.	BETWEEN Groups 1, 2 and 3 (See page 4) AND	CLASSES. Rates in cents per 100 lbs.																			
		1		2		3		4		5		A		B		C		D		E	
138	Goodrich..... N. D.	99.	103.	82.	88.	67.	69.	50.	53.	40.	43.	42.		35.	37.	30.	32.	23.	26.	20.	22.
139	Denhoff..... "	102.	104.	85.	89.	69.	70.	52.	54.	41.	43.	43.		36.	37.	31.	32.	25.	26.	20.	22.
140	McClusky..... "	105.	110.	87.	94.	70.	74.	52.	58.	42.	46.	45.		37.	40.	31.	34.	26.	27.	21.	22.
141	Mercer..... "	107.	112.	89.	96.	71.	76.	53.	60.	43.	48.	46.		37.	41.	32.	34.	27.	28.	21.	22.
142	Turtle Lake..... "	108.	112.	90.	96.	72.	77.	54.	61.	43.	49.	46.		38.	41.	32.	35.	27.	28.	22.	22.
143	*Guptil..... N. D.	87.	94.	72.	80.	58.	62.	43.	47.	35.	38.	38.		30.	33.	26.	28.	22.	23.	17.	19.
144	Barlow..... "	88.	95.	73.	81.	59.	63.	44.	48.	35.	38.	38.		31.	33.	26.	29.	22.	23.	18.	19.
145	New Rockford..... "	90.	97.	75.	83.	61.	65.	46.	50.	36.	39.	39.		31.	34.	27.	30.	22.	23.	18.	19.
146	*Divide..... "	91.	98.	76.	84.	61.	66.	46.	50.	36.	39.	39.		32.	34.	27.	30.	23.	24.	18.	20.
147	Sheyenne..... "	92.	99.	76.	84.	62.	66.	46.	50.	36.	40.	40.		32.	35.	27.	30.	23.	24.	18.	20.
148	Oberon..... "	94.	101.	78.	86.	63.	68.	47.	52.	38.	41.	41.		33.	36.	28.	31.	24.	25.	19.	21.
149	*Genin..... "	95.	101.	79.	86.	63.	68.	47.	52.	38.	41.	41.		33.	36.	28.	31.	24.	25.	19.	21.
150	Flora..... "	96.	102.	80.	87.	64.	69.	48.	53.	38.	42.	42.		34.	36.	29.	31.	24.	25.	19.	21.
151	Maddock..... "	96.	102.	80.	87.	64.	69.	48.	53.	38.	42.	42.		34.	36.	29.	31.	24.	25.	19.	21.
152	*Hesper..... "	97.	103.	81.	88.	65.	69.	48.	53.	39.	43.	43.	42.	34.	37.	29.	32.	24.	26.	19.	22.
153	*Pendennis..... "	97.	103.	81.	88.	65.	69.	48.	53.	39.	43.	43.	42	34.	37.	29.	32.	24.	26.	19.	22.
154	Esmond..... "	98.	104.	82.	89.	65.	70.	49.	54.	39.	43.	43.		34.	37.	29.	32.	24.	26.	20.	22.
155	*Lallie..... N. D.	95.	102.	79.	87.	63.	69.	47.	53.	38.	42.	41.	42.	33.	36.	28.	31.	24.	25.	19.	21.
156	Minnewaukan..... "	96.	102.	80.	87.	64.	69.	48.	53.	38.	42.	41.	42.	34.	36.	29.	31.	24.	25.	19.	21.
157	Brinsmade..... "	97.	102.	81.	87.	65.	69.	50.	53.	40.	42.	41.	42.	35.	36.	29.	31.	24.	25.	19.	21.
158	Leeds..... "	97.	102.	82.	87.	66.	69.	51.	53.	41	42.	41.	42.	36.		29.	31.	24.	25.	19.	21.
159	*Berner..... N. D.	78.		65.		52.		39.		31.		35.		27.		23.		19.		16.	
160	Eldridge..... "	78.	87.	65.	74.	52.	57.	39.	44.	31.	35.	35.		27.	30.	23.	26.	19.	21.	16.	18.
161	*Oswego..... "	79.		66.		53.		39.		32.		36.		28.		24.		20.		16.	
162	Windsor..... "	80.	89.	67.	76.	53.	59.	40.	45.	32.	36.	36.		28.	31.	24.	27.	20.	21.	16.	18.
163	Cleveland..... "	82.	90.	68.	77.	55.	59.	41.	45.	33.	36.	36.		29.	32.	25.	27.	20.	22.	16.	18.
164	*Don..... "	83.		69.		55.		41.		33.		36.		29.		25.		21.		17.	

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Index No.	BETWEEN Groups 1, 2 and 3 (See page 4) AND	CLASSES Rates in cents per 100 lbs. 1	2	3	4	5	A	B	C	D	E
202	*Eagles Nest.....N. D.	118.	100.	81.	65. 66.	48.5 53.	51.	46.	39.	31.5 32.	26. 27.
203	Hebron..... "	119.	101.	82.	66. 67.	49.5 54.	51.	46.	39. 40.	31.5 32.	27. 28.
204	*Knife River..... "	120.	102.	82.	66. 68.	49.5 54.	52.	46. 47.	39. 41.	32.5 33.	27. 28.
205	*Antelope..... "	121.	103.	83.	67. 68.	50.5 55.	53.	47.	40. 41.	32.5 33.	27. 29.
206	Richardton..... "	122.	104.	84.	68. 69.	50.5 56.	53.	47. 48.	40. 42.	32.5 34.	27. 29.
207	Taylor..... "	123.	105.	85.	68. 70.	51.5 57.	54.	48.	41. 42.	33.5 34.	27. 30.
208	*Boyle..... "	124.	105.	86.	69. 70.	51.5 58.	54.	48. 49.	41. 43.	33.5 35.	28. 30.
209	Gladstone..... "	125.	106.	87.	69. 71.	51.5 59.	55.	48. 49.	41. 43.	33.5 35.	28. 30.
210	*Lehigh..... "	126.	107.	87.	70. 72.	52.5 59.	56.	49. 50.	41. 44.	33.5 36.	28. 30.
211	Dickinson..... "	127.	108.	88.	71. 73.	52.5 60.	56.	49. 50.	42. 44.	34.5 36.	28. 31.
212	*Eland..... "	128.	109.	89.	71. 73.	52.5 61.	57.	49. 50.	42. 45.	34.5 37.	28. 31.
213	*South Heart..... "	129.	110.	90.	71. 74.	53.5 62.	58.	50.	42. 45.	34.5 37.	29. 31.
214	*Zenith..... "	130.	110.	90.	71. 75.	53.5 63.	59.	50. 51.	42. 46.	34.5 38.	29. 32.
215	Belfield..... "	130.	110.	90.	72. 76.	54.5 63.	59.	51.	43. 46.	35.5 38.	29. 32.
216	*Fryburg..... "	131.	111.	91.	73. 77.	54.5 64.	60.	51. 52.	43. 47.	35.5 39.	29. 33.
217	*Sully Springs..... "	132.	112.	92.	73. 78.	55.5 65.	60.	51. 52.	44. 47.	35.5 39.	29. 33.
218	*Scoria..... "	133.	113.	93.	73. 79.	55.5 66.	61.	51. 53.	44. 48.	35.5 40.	29. 34.
219	Medora..... "	134.	114.	94.	74. 80.	55.5 67.	61.	52. 53.	44. 48.	35.5 40.	30. 34.
220	*Little Missouri..... "	134.	114.	94.	74. 80.	56.5 67.	61.	52. 53.	44. 48.	36.5 40.	30. 34.
221	*Waldon..... "	135.	115.	95.	74.	56.5	62.	52.	44.	36.5	30.
222	*De Mores..... "	136.	116.	96.	75. 81.	56.5 68.	62. 63.	53. 54.	45. 49.	36.5 41.	30. 35.
223	Sentinel Butte..... "	137.	116.	96.	76. 82.	57.5 69.	63.	53. 55.	45. 50.	36.5 42.	30. 36.
224	*Chama..... "	138.	117.	97.	76. 83.	57.5 70.	63. 64.	53. 55.	45. 50.	36.5 42.	30. 36.
225	Beach..... "	140.	118.	98.	76. 84.	57.5 71.	63. 65.	53. 56.	45. 51.	37 5 43.	31. 37.

COMPLAINANT'S EXHIBIT 48. BAIRD.

A-Combination Carload rate St. Paul to Fargo plus less Carload rate to Destination.
B-Less Carload rate St. Paul to Destination.

		Beans dry in sacks	Canned Meats and Soups	Syrup, Sugar and Rice	Plows, Mowers, and Seed Drills	Oranges
Mandan	A	60.7	53.7	50.7	66.4	99.1
	B	67.	51.	51.	67.	100.
New Salem	A	64.7	56.7	53.7	70.4	105.1
	B	75.	60.	60.	75.	111.
Glenullen	A	68.7	59.7	56.7	74.4	111.1
	B	80.	65.	65.	80.	117.
Hebron	A	69.7	60.7	57.7	75.4	113.1
	B	82.	66.	66.	82.	119.
Dickinson	A	74.7	64.7	61.7	80.4	121.1
	B	88.	71.	71.	88.	127.
Belfield	A	77.7	66.7	63.7	83.4	125.1
	B	90.	72.	72.	90.	130.
Beach	A	83.7	70.7	67.7	89.4	134.1
	B	98.	76.	76.	98.	140.

COMPLAINANT'S EXHIBIT 49. CLELAND.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement of Passenger Revenue in Minnesota, and on the Whole Road, months of April, May and June, 1907 and 1908, compared with corresponding months of 1906.

	1906	1907	Increase in 1907 over 1906		1908	Increase in 1908 over 1906	
TO AND FROM MOORHEAD:							
April	$2,277.70	$2,434.52	$156.82	6.9%	$2,834.34	$556.64	24.4%
May	2,120.52	15,839.48	13,718.96	647.0%	3,049.22	928.70	43.8%
June	3,241.02	24,230.40	20,989.38	647.6%	4,674.41	1,433.39	44.2%
	$7,639.24	$42,504.40	$34,865.16	456.4%	$10,557.97	$2,918.73	38.2%
LOCAL TO STATE OF MINNESOTA:							
April	77,143.58	80,389.25	3,245.67	4.2%	76,332.74	810.84	1.1%
May	73,724.71	86,014.69	12,289.98	16.7%	79,120.32	5,395.61	7.3%
June	100,091.70	123,278.02	23,186.32	23.2%	97,112.64	2,979.06	3.0%
	$250,959.99	$289,681.96	$38,721.97	15.4%	$252,565.70	$1,605.71	0.6%
LOCAL TO THE STATE OF MINNESOTA: (Eliminating Moorhead business)							
April	74,865.88	77,954.73	3,088.85	4.1%	73,498.40	1,367.48	1.8%
May	71,604.19	70,175.21	1,428.98	2.0%	76,071.10	4,466.91	6.2%
June	96,850.68	99,047.62	2,196.94	2.3%	92,438.23	4,412.45	4.6%
	$243,320.75	$247,177.56	$3,856.81	1.6%	$242,007.73	$1,313.02	0.5%
WHOLE ROAD:							
April	1,099,570.38	1,333,248.97	233,678.59	21.3%	1,364,501.41	264,931.03	24.1%
May	1,189,246.96	1,422,457.92	233,210.96	19.6%	1,472,472.77	283,225.81	23.8%
June	1,317,720.23	1,715,238.00	397,517.77	30.2%	1,300,913.46	16,806.77	1.3%
	$3,606,537.57	$4,470,944.89	$864,407.32	24.0%	$4,137,887.64	$531,350.07	14.7%

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COMPLAINANT'S EXHIBIT 50. CLELAND.

NORTHERN PACIFIC RAILWAY COMPANY.

Comparative Statement of Ticket Sales between St. Paul and Minneapolis, and Moorhead, Fargo, East Grand Forks and Grand Forks, for June, 1906, 1907 and 1908.

	1906				1907				1908			
	One Way		Return		One Way		Return		One Way		Return	
	Full	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full	Half
St. Paul to Moorhead	13	3	6	1	770	19	5	..	60	..	..	.....
St. Paul to Fargo	162	22	13	1	15	14	1	1	395	7	2	.....
St. Paul to East Grand Forks	1	..	12	2	84	1	1	..	2	2	..	.....
St. Paul to Grand Forks	12	2	..	..	2	1	..	..	14	1	4	.....
Minneapolis to Moorhead	20	3	4	..	957	9	..	..	87	1	..	.....
Minneapolis to Fargo	236	14	24	..	7	47	..	..	598	1	2	.....
Minneapolis to East Grand Forks	.....	..	..	..	103	1	..	..	3	..	1	.....
Minneapolis to Grand Forks	18	2	..	..	1	2	..	..	27	1	..	.....
Moorhead to St. Paul	24	6	2	..	757	..	7	..	55	2	1	.....
Moorhead to Minneapolis	48	5	..	..	963	..	6	..	126	..	1	.....
Fargo to St. Paul	128	20	10	..	12	25	5	..	341	8	3	.....
Fargo to Minneapolis	246	15	4	..	5	34	..	..	584	7	3	.....
East Grand Forks to St. Paul	7	..	..	..	167	9	..	..	15	2	..	.....
East Grand Forks to Minneapolis	12	1	1	1	175	5	1	..	16	..	..	.....
Grand Forks to St. Paul	24	4	1	..	.....	..	..	..	41	..	3	.....
Grand Forks to Minneapolis	25	1	..	..	.....	1	..	..	53	2	..	.....
Totals	976	98	77	5	4,018	168	26	1	2,417	34	20	.....

St. Paul, Minn.,
Sept. 19, 1908.

GEO. SHERRIFF,
Auditor Passenger Receipts.

COMPLAINANT'S EXHIBIT 51. CLELAND.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing Comparison of Cash Fare train Collections, St. Paul and Minneapolis to Moorhead, and Moorhead to St. Paul and Minneapolis, in March April, May and June 1906, 1907 and 1908.

	St. Paul to Moorhead		Moorhead to St. Paul		Minneapolis to Moorhead		Moorhead to Minneapolis	
	Full	Half	Full	Half	Full	Half	Full	Half
March, 1906	.....	1	.....	.....	.....	.....	.....	.....
April, 1906	2	2	.....	.....	.....	.....	.....	.....
May, 1906	.....	.....	.....	.....	.....	.....	.....	.....
June, 1906	1	.....	.....	.....	.....	.....	.....	.....
Total	3	3	.....	.....	.....	.....	.....	.....
March, 1907	.....	1	.....	.....	.....	.....	1	.....
April, 1907	1	.....	.....	.....	.....	.....	.....	.....
May, 1907	12	9	218	11	3	3	245	3
June, 1907	8	14	312	20	13	8	357	14
Total	21	24	530	31	16	11	603	17
March, 1908	.....	.....	1	.....	.....	.....	1	.....
April, 1908	.....	.....	.....	.....	1	.....	2	.....
May, 1908	.....	.....	4	.....	.....	.....	2	.....
June, 1908	8	.....	.....	.....	1	2	1	.....
Total	8	.....	5	.....	2	2	6	.....

St. Paul, Minn., Sept. 19, 1908.

GEO. SHERRIFF,
Auditor Passenger Receipts.

COMPLAINANT'S EXHIBIT 52. CLELAND..

From	St. Paul				
	Old	New	Difference in Rate		
To	Rate	Rate	Total	In Minn.	In N.D.
Fargo	$7.28	$4.90	$2.38	$2.38	.....
Jamestown	9.95	7.20	2.75	2.38	$0.37
New Salem	14.00	10.60	3.40	2.38	1.02
Mandan	12.85	9.90	2.95	2.38	.57
Bismarck	12.70	9.75	2.95	2.38	.57
Dickinson	16.45	12.65	3.80	2.38	1.42
Dawson	11.45	8.50	2.95	2.38	.57
Valley City	8.90	6.35	2.55	2.38	.17
Beach	18.35	14.25	4.10	2.38	1.72
Sanborn	9.25	6.65	2.60	2.38	.22
Sims	14.20	10.80	3.40	2.38	1.02
Gladstone	16.10	12.35	3.75	2.38	1.37
Medora	17.60	13.65	3.95	2.38	1.57
Sentinel Butte	18.10	14.05	4.05	2.38	1.67

NOTE: Old rates were 30 cents less from Minneapolis, and new rates are 25 cents less.

COMPLAINANT'S EXHIBIT 53. CLELAND. (N. P.)

Statement showing changes in Through Passenger Fares caused by State Laws Limiting Fares Locally, with amount of Reduction suffered by Northern Pacific Com

Fares in Effect Prior to May 1, 1907, shown in Red.

FROM / TO	NEW YORK				PHILADELPHIA				DETROIT				TOLEDO			
	Fare 1st Class	Divisions			Fare 1st Class	Divisions			Fare 1st Class	Divisions			Fare 1st Class	Divisions		
		E. Ch	Ch-St. P	W. St. P		E. Ch	Ch-St. P	W. St. P		E. Ch	Ch-St. P	W. St. P		E. Ch	Ch-St. P	W.
Fargo, N. D.	38.50	20.00	11.50	7.00	36.75	18.25	11.50	7.00	24.28	5.80	11.50	6.98	23.98	5.50	11.50	
	32.65	20.00	8.00	4.65	30.90	18.25	8.00	4.65	17.65	5.00	8.00	4.65	18.15	5.50	8.00	
Loss to Nor. Pac.				2.35				2.35				2.33				
Bismarck, N. D.	44.20	20.00	11.50	12.70	42.45	18.25	11.50	12.70	30.00	5.80	11.50	12.70	29.70	5.50	11.50	12
	37.75	20.00	8.00	9.75	36.00	18.25	8.00	9.75	22.75	5.00	8.00	9.75	23.25	5.50	8.00	
Loss to Nor. Pac.				2.95				2.95				2.95				
Billings, Mont.	37.85	20.00	11.50	26.35	56.10	18.25	11.50	26.35	43.65	5.80	11.50	26.35	43.35	5.50	11.50	26
	50.25	20.00	8.00	22.25	48.50	18.25	8.00	22.25	35.25	5.00	8.00	22.25	35.75	5.50	8.00	22
Loss to Nor. Pac.				4.10				4.10				4.10				
Helena, Mont. / Butte, Mont.	64.00	20.00	11.50	32.50	62.25	18.25	11.50	32.50	49.80	5.80	11.50	32.50	49.50	5.50	11.50	32
	57.40	20.00	8.00	29.40	55.65	18.25	8.00	29.40	42.40	5.00	8.00	29.40	42.90	5.50	8.00	29
Loss to Nor. Pac.				3.10				3.10				3.10				
Missoula, Mont.	66.20	20.00	11.50	34.70	64.45	18.25	11.50	34.70	52.00	5.80	11.50	34.70	51.70	5.50	11.50	34
	61.15	20.00	8.00	33.15	59.40	18.25	8.00	33.15	46.15	5.00	8.00	33.15	46.65	5.50	8.00	33
Loss to Nor. Pac.				1.55				1.55				1.55				
Spokane, Wash.	74.00	20.00	11.50	42.50	72.25	18.25	11.50	42.50	59.80	5.80	11.50	42.50	59.50	5.50	11.50	42
	66.70	20.00	8.00	38.70	64.95	18.25	8.00	38.70	51.70	5.00	8.00	38.70	52.20	5.50	8.00	38
Loss to Nor. Pac.				3.80				3.80				3.80				
Seattle, Wash. / Tacoma, Wash. / Portland, Ore.	81.50	20.00	11.50	50.00	79.75	18.25	11.50	50.00	67.30	5.80	11.50	50.00	67.00	5.50	11.50	50
	76.90	20.00	8.00	48.90	75.15	18.25	8.00	48.90	61.70	5.00	8.00	48.90	62.40	5.50	8.00	48
Loss to Nor. Pac.				1.10				1.10				1.10				

"E. Ch."—East of Chicago.
"Ch.-St. P."—Between Chicago & St. Paul.
"W. St. P."—West of St. Paul.

Northern Pacific Company. Present Fares shown in black.

TOLEDO			CHICAGO			
Divisions			Fare 1st Class	Divisions		
E. Ch	Ch-St. P	W. St. P		E. Ch	Ch-St. P	W. St. P
					11.50	6.98
5.50	11.50	6.98	18.48			
5.50	8.00	4.65	12.65	.....	8.00	4.65
		2.33				2.33
					11.50	12.70
5.50	11.50	12.70	24.20			
5.50	8.00	9.75	17.75	.....	8.00	9.75
		2.95				2.95
					11.50	26.35
5.50	11.50	26.35	37.85			
5.50	8.00	22.25	30.25	.....	8.00	22.25
		4.10				4.10
					11.50	32.50
5.50	11.50	32.50	44.00			
5.50	8.00	29.40	37.40	.....	8.00	29.40
		3.10				3.10
					11.50	34.70
5.50	11.50	34.70	46.20			
5.50	8.00	33.15	41.15	.....	8.00	33.15
		1.55				1.55
					11.50	42.50
5.50	11.50	42.50	54.00			
5.50	8.00	38.70	46.70	.....	8.00	38.70
		3.80				3.80
					11.50	50.00
5.50	11.50	50.00	61.50			
5.50	8.00	48.90	56.90	.....	8.00	48.90
		1.10				1.10

COMPLAINANT'S EXHIBIT 54. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement Comparing Minnesota Freight and Passenger Business with that of all other states and the entire road, Fiscal Year ending June 30, 1906.

FREIGHT BUSINESS.

	Tons Carried	Ratio of Each Class	Tons One Mile	Percentage of Total	Average Haul (miles)
Minnesota Intrastate....	1,446,616	12.33%	139,737,586	2.67%	96.6
Minnesota Interstate....	5,398,752	87.67%	993,638,757	18.94	*184.0
Total in Minnesota...	6,845,368	100%	1,133,376,343	21.61%	165.6
Total entire road.....	15,356,312	.....	5,245,260,080	.....	341.6

PASSENGER BUSINESS.

	Passengers Carried	Ratio of Each Class	Passengers Carried One Mile	Percentage of Total	Average Distance Carried (miles)
Minnesota Intrastate....	1,192,002	67.21%	38,158,981	5.79%	32.0
Minnesota Interstate....	503,306	32.79%	78,216,468	11.87%	155.4
Total in Minnesota...	1,695,308	100%	116,375,449	17.66%	68.6
Total entire road.....	5,020,280	.....	659,050,227	.....	111.3

*In Minnesota.

COMPLAINANT'S EXHIBIT 55. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing Intrastate Average Rate per Passenger per Mile in Minnesota, Wisconsin, North Dakota, and all other states—eight fiscal years ending June 30, 1908.

	Rate per Passenger Mile (In Cents)			
	Intrastate Passengers			
	Minnesota	Wisconsin	North Dakota	All other states
1901	2.290	2.758	2.705	2.781
1902	2.307	2.826	2.661	2.643
1903	2.322	2.701	2.634	2.673
1904	2.381	2.771	2.716	2.720
1905	2.435	2.748	2.756	2.783
1906	2.406	2.650	2.775	2.699
1907	2.197	2.743	2.682	2.654
1908	1.930	2.179	2.427	2.779

COMPLAINANT'S EXHIBIT 56. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY

Statement showing comparative effect of reductions in Intrastate passenger rates on volume of Intrastate passenger business, fiscal years ending June 30, 1901 and 1907.

	Minnesota	Wisconsin	North Dakota	Other States
Passengers carried one mile				
1901	33,995,540	1,643,451	8,702,560	64,104,625
1907	49,158,057	2,167,325	30,049,830	175,353,733
Increase	15,162,517	523,874	21,347,270	111,249,108
Percentage of increase	44.6%	31.9%	245.3%	173.5%
Average rate per passenger per mile—in cents				
1901	2.290	2.758	2.705	2.781
1907	2.197	2.743	2.682	2.654
Decrease	0.102	0.015	0.023	0.127
Percentage of Decrease	4.4%	0.5%	0.8%	4.6%
Maximum rate per passenger mile				
In 1901	3.000	3.000	3.000	3.000
Average collected 1907	2.197	2.743	2.682	2.654
Difference	0.803	0.257	0.318	0.346
	26.7%	8.6%	10.6%	11.5%

COMPLAINANT'S EXHIBIT 57. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement of passengers carried one mile in Minnesota, divided as between Intrastate and Interstate, also for balance of the System—fiscal years ending June 30th, 1907 and 1908.

	Passengers One Mile			
	In Minnesota			Other than Minnesota
	Intrastate	Interstate	Total	
1907	49,158,057	90,266,304	139,424,361	583,320,808
1908	54,937,666	98,309,654	153,247,320	641,104,628
Increase	5,779,609	8,043,350	13,822,959	57,783,730
	11.8%	8.9%	9.9%	9.9%

COMPLAINANT'S EXHIBIT 58. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing passengers carried one mile and revenue August 1, 1907 to April 30, 1908, compared with the same period one year previous, illustrating the comparative effect of two cents per mile passenger rate in Wisconsin and Minnesota, two and one-half cents in North Dakota, and three cents in all other states.

	Passengers One Mile				Passenger Revenue			
	1906–1907	1907–1908	Increase		1906–1907	1907–1908	Increase	
Intrastate:								
Wisconsin	1,522,682	1,623,448	110,766	7.2%	$42,403.79	$35,646.04	†$6,757.75	15.9%
Minnesota	32,882,924	39,409,123	6,526,199	19.8	764,828.91	756,585.98	†8,242.93	1.1
North Dakota	20,275,505	25,267,956	4,992,451	24.6	554,368.55	611,178.41	56,809.86	10.2
All other states	124,424,561	140,520,077	16,095,516	12.1	3,333,835.46	3,935,186.01	601,350.55	18.0
	179,105,672	206,820,604	27,724,932	15.4%	$4,695,436.71	$5,338,596.44	$643,159.73	13.7%
Interstate:								
Wisconsin	4,062,493	4,745,406	682,913	16.8%	$91,700.20	$91,328.69	†371.51	0.4%
Minnesota	67,922,393	74,818,438	6,896,045	10.1	1,363,460.63	*1,438,120.23	*74,659.60	5.4
North Dakota	58,555,938	65,205,646	6,649,708	11.3	1,235,860.44	1,418,241.83	182,381.39	14.7
All other states	211,171,309	249,540,794	38,369,485	18.1	4,480,759.51	5,419,747.92	938,988.41	20.9
	341,712,133	394,310,284	52,598,151	15.3%	$7,171,780.78	$8,367,438.67	$1,195,657.89	16.6%
Intrastate and Interstate:								
Wisconsin	5,585,175	6,274,666	689,491	12.3%	$134,103.99	$124,620.02	†$9,483.97	7.1%
Minnesota	100,805,317	114,227,561	13,422,244	13.3	2,128,289.54	*2,194,706.21	*66,416.67	3.1
North Dakota	78,831,443	89,080,482	10,249,039	12.9	1,790,228.99	1,994,592.26	204,363.27	11.4
All other states	335,595,870	383,225,503	47,629,723	14.1	7,814,594.97	9,179,105.26	1,364,510.29	17.4
	520,817,805	592,808,212	71,990,497	13.8%	$11,867,217.49	$13,493,023.75	$1,625,806.26	13.7%

* In apportioning Interstate Passenger Revenue after July 1, 1907, Minnesota was allowed its mileage proportion notwithstanding its two-cent maximum rate. The average overallowance to Minnesota on tickets sold on basis of two cents in Minnesota, two and one-half cents in North Dakota, and three cents west of North Dakota, is about 7.9% as demonstrated by an analysis of January, 1908, traffic. Applying this percentage to the Minnesota Interstate Passenger Revenue August 1, 1907 to April 30, 1908, $1,438,120.23, produces an overallowance in this period of $113,611.50, resulting in a loss of $38,951.90 on Interstate business, or 2.7%, and $47,194.83 in total passenger revenue, or 2.2%, instead of the gain shown above.

† Red ink figures indicate decrease.

MEMO RE EXHIBIT NO. 58.

Attention is called to the fact that in the foot note on the Exhibit, the word "Limited" to 2c per mile in Minnesota is used, and not "Average," meaning, of course, that if all business giving Minnesota on a mileage proportion over 2c per passenger per mile, had been reduced to 2c, the reduction in revenue would have been 7.9%; but I wish to make it clear that this would not contemplate adding to Minnesota's proportion of Interstate revenue the difference on any business that yielded less than 2c per passenger per mile on a mileage prorate.

TWO CONCRETE EXAMPLES.

A ticket—St. Paul to Livingston, Mont.:

Minnesota mileage proportion of new rate, 24.8% of $25.70 equals	$6.37
The 250-mile haul St. Paul to Fargo @ 2c is	5.00
Over allowance	$1.37
Equal to	21.5%

A ticket covering 100 miles in Minnesota and 20 miles in North Dakota:

100 miles @ 2c	$2.00	
20 miles @ 2½c	.50	
120 miles Total		$2.50

Minnesota mileage proportion

10/12 of $2.50 is	$2.08
100 miles @ 2c is	2.00
Over allowance	.08
Equal to	3.8%

COMPLAINANT'S EXHIBIT 59. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing Reduction in Passenger Revenue based on the loss on Minnesota Intrastate Business applied to the Intrastate Business for the entire line, and based on the loss on Interstate Passengers carried in Minnesota applied to the Interstate Passenger Business of the entire line—fiscal year ending June 30, 1906.

INTERSTATE PASSENGERS IN MINNESOTA.

ON TRAFFIC AFFECTED:		
Revenue at the 2c maximum	$211,193.48	
Revenue would have been at the 3c maximum	308,428.18	
Reduction in revenue was	$97,234.70	
Percentage of reduction on $308,428.18 is		31.52%
ON ALL TRAFFIC:		
Revenue at the 2c maximum	$497,208.34	
Revenue would have been at the 3c maximum	594,443.04	
Reduction in revenue was	$97,234.70	
Percentage of reduction on $594,443.04 is		16.36%

MINNESOTA INTRASTATE PASSENGERS.

ON TRAFFIC AFFECTED:		
Revenue at the 2c maximum	$312,538.33	
Revenue would have been at the 3c maximum	459,799.92	
Reduction in revenue was	$147,261.59	
Percentage of reduction on $459,799.92 is		32.03%

The above results were arrived by an analysis of the business in the months of May and June, 1907 (two summer months), and January and February, 1908 (two winter months). By "Traffic Affected" is meant the business on which the company would, under the old rates, have collected the maximum of 3c per mile.

The reduction in revenue on all Minnesota Intrastate Passenger Business (the business on which the 3c maximum could have been collected under the old rates, as also the business on which the 3c maximum could not have been collected) measured by the difference between the average rate per passenger per mile collected in the year ending June 30, 1908, during which period the 2c rate was in effect, and the average rate per passenger per mile received during the year ending June 30, 1906, when the 3c maximum rate was in effect, which takes into consideration the voluntary reductions made by the company is as follows:

Average rate per passenger per mile in 1906	2.406c	
" " " " " " 1908	1.930c	
Decrease in average rate	0.476c	= to 19.78%

Result of application of the foregoing reductions to the business for year ending June 30, 1906.

	Passenger Revenue for entire line	Loss in Revenue			
		Based on the business affected		Based on all business	
Intrastate	$4,959,094.16	32.03%	$1,588,397.86	19.78%	$990,908.82
Interstate	8,832,245.41	31.52%	2,783,923.75	16.36%	1,444,955.35
Total	$13,791,339.57	31.70%	$4,372,321.61	17.66%	$2,435,864.17

MEMO RE EXHIBIT NO. 59.

LOSS ON MINNESOTA INTERSTATE PASSENGER BUSINESS MAY AND JUNE, 1907, AND JANUARY AND FEBRUARY, 1908.

The Interstate business touching Minnesota may, for this purpose, be properly divided into two groups.

First: First-class business carried at rates which are built up by the sum of the locals in Wisconsin, Minnesota, North Dakota and Montana, and which are only affected where the shorter line makes rates to junction stations on the Northern Pacific.

Second: All other business carried at rates not made up of the sum of the locals, including colonists, special excursions, round-trip tickets, etc., which were not affected by a change in the legal maximum rate.

The reduction of the legal maximum rate in Minnesota from 3c to 2c per passenger per mile affected first-class rates as far west as Avon, Montana. Having determined this from the tariffs, it was, therefore, only necessary to obtain from the ticket reports the details of such business carried in the months in question and compute the revenue at the rates in effect under the legal maximum of 3c and at the rates under the legal maximum of 2c per passenger per mile. This was done and the proportion accruing to the State of Minnesota on a straight mileage basis was arrived at; the result as shown in the first group of figures on the exhibit being as follows:

Revenue under the 3c maximum	$308,428.18
Revenue under the 2c maximum	211,193.48
Reduction in revenue between the two maxima	$97,234.70

equivalent to a reduction of 31.52% on what the company would have received under the 3c maximum.

A CONCRETE EXAMPLE OF "AFFECTED BUSINESS."

1 first-class ticket St. Paul to Livingston, Mont.

Distance via the Northern Pacific:

In Minnesota	250	miles or	24.8%
North Dakota	378	"	37.5%
Montana	380	"	37.7%
Total	1,008	"	100.%

Rate when maximum was 3c per mile in the 3 states:

St. Paul to Billings	$26.35	
Billings to Livingston	3.45	
Total		$29.80

This is slightly under 3c per mile, because the rate is made on Billings, a competitive point.

Rate under 2c maximum in Minnesota, 2½ maximum in North Dakota, and 3c in Montana:

St. Paul to Fargo (short line)	245	miles @	2c	$4.90
Fargo to Dak.-Mont. State Line	377	"	2½c	9.40
Dak.-Mont. State Line to Livingston	380	"	3c	11.40
Total				$25.70
Reduction in rate				4.10
Old rate—St. Paul to Fargo				$7.28
New rate—St. Paul to Fargo				4.90
Reduction				$2.38
Equal to				32.7%

COMPLAINANT'S EXHIBIT 60. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Table illustrating the principle embodied in the Minnesota Legislative Reasonable Maximum Commodity Rates and Minnesota Railroad and Warehouse Commission Reasonable Maximum Merchandise and Class Rates—of adding a constant hauling charge after a certain distance is reached.

	Terminal Merchandise and Class Rates Rates in Cents per 100 pounds									
	1	2	3	4	5	A	B	C	D	E
Distance—400 miles.....	69.8	58.2	46.5	34.9	27.9	31.3	24.4	20.9	17.5	14.0
500 miles.....	74.7	62.3	49.3	37.4	29.9	33.6	26.1	22.4	18.7	14.9
Allowance for 100 miles...	4.9	4.1	2.8	2.5	2.0	2.3	1.7	1.5	1.2	0.9
Per ton per mile in mills...	9.8	8.2	5.6	5.0	4.0	4.6	3.4	3.0	2.4	1.8

	Distance Merchandise and Class Rates Rates in Cents per 100 pounds									
	1	2	3	4	5	A	B	C	D	E
Distance—400 miles.....	73.3	61.1	48.9	36.6	29.3	32.9	25.7	22.0	18.3	14.7
500 miles.....	78.5	65.4	51.8	39.2	31.4	35.3	27.5	23.5	19.6	15.7
Allowance per 100 miles...	5.2	4.3	2.9	2.6	2.1	2.4	1.8	1.5	1.3	1.0
Per ton per mile in mills...	10.4	8.6	5.8	5.2	4.2	4.8	3.6	3.0	2.6	2.0

	Commodity Rates						
	Rates in Cents per 100 pounds Class					Per Ton	
	11	12	13	14	15	16	17
Distance—300 miles.....	10.9	9.6	12.5	18.5	20.8	$1.92	$1.54
400 miles.....	12.0	10.6	13.7	20.7	23.3	2.16	1.72
Allowance for 100 miles...	1.1	1.0	1.2	2.2	2.5	$0.24	$0.18
Per ton per mile in mills...	2.2	2.0	2.4	4.4	5.0	2.4	1.8

COMPLAINANT'S EXHIBIT 61. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

"MINNESOTA RATE CASE."

Statement showing rates per ton per mile October, 1905, and April, 1906, combined, compared with the average rates per ton per mile on various Commodities and Merchandise, for the fiscal year ending June 30, 1906.

	October 1905 and April 1906			Year ending June 30, 1906
	Ton Miles	Revenue	Rate per ton mile in cents	Rate per ton mile in cents
Grain	163,445,788	$1,287,066.92	.787	.816
Live stock	33,724,082	402,313.77	1.193	1.209
Hard coal	13,329,101	79,921.18	.600	.638
Soft coal	48,891,205	359,023.75	.734	.764
Lumber and shingles	354,633,155	1,865,421.25	.526	.523
Merchandise	294,271,835	3,581,089.43	1.217	1.213
Total	908,295,166	$7,574,836.30	.834	.831
Logs, wood, poles, etc	34,251,279	268,449.34	.784	.768
Total	942,546,445	$7,843,285.64	.832	.828

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 5, 1908.

COMPLAINANT'S EXHIBIT 62. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing the revenue that was received from commodities included in the tariff prescribed by Act of the Legislature of the State of Minnesota, approved April 18, 1907, also Merchandise and Class Rate Business included in the orders of the Minnesota Railroad and Warehouse Commission September 6, 1906, and May 3, 1907; the percentage of loss that would have resulted by application of the maximum rates included in said Act and orders, or extension of such rates upon the principle of said tariffs, and the loss of revenue that would have accrued in the fiscal year ending June 30, 1906.

	Total Revenue collected	Percentage of loss on the basis described in the caption (Affected Business)	Loss that would have accrued	Percentage of loss on the basis described in the caption (Total Business)	Loss that would have accrued
Hard coal	$384,036.38	9.266%	$35,584.81	7.319%	$28,107.62
Soft coal	2,236,764.61	15.331%	342,918.38	7.825%	175,026.83
Wheat, flax and flour	4,956,332.83	15.890%	787,561.29	15.328%	759,706.70
Coarse grain	974,314.56	30.858%	300,653.99	29.029%	282,833.77
Lumber and shingles	11,316,235.57	28.209%	3,192,196.89	25.073%	2,837,319.74
Cattle and sheep	1,460,280.98	20.494%	299,269.98	19.527%	285,149.07
Hogs	117,546.89	20.898%	24,564.95	20.145%	23,679.82
Total commodities	$21,445,511.82	23.234%	$4,982,750.29	20.479%	$4,391,823.55
Merchandise and class rate business	20,253,980.15	32.844%	6,652,217.24	25.044%	5,072,406.79
Total	$41,699,491.97	27.902%	$11,634,967.53	22.696%	$9,464,230.34

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-A. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Hard Coal Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business					Percent of Decrease of Total Business
		Under Present Tariff	Voluntary Tariff Oct. 1906	Under Legislative Tariff or the principle of said tariff extended to long haul business	Loss	Percent of Decrease of Affected Business	
Minnesota Local Business:							
Substantially none of this is hauled over 300 miles	$3,104.90	$1,598.37	$1,598.37	$1,512.67	$85.70	5.36%	2.76%
Interstate hauled over 300 miles	22,489.75	22,160.34	22,074.34	17,810.26	4,264.08	19.24%	18.96%

Business Local to All States and Interstate:								
				Loss			Loss	
Hauled 300 miles or less	$57,431.43	@	5.36%	$3,078.32	@	2.70%	$1,585.11	
Hauled over 300 miles	22,489.75	@	19.24%	4,327.03	@	18.96%	4,264.08	
Total	$79,921.18	@	9.266%	$7,405.35	@	7.319%	$5,849.19	

Total Hard Coal Business for fiscal year ending June 30, 1906—$384,036.38 Loss @ 9.266% = $35,584.81
" @ 7.319% = $28,107.62

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-B. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Soft Coal Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business					
		Under Present Tariff	Voluntary Tariff Oct. 1906	Under Legislative Tariff or the principle of said tariff extended to long haul business	Loss	Percent of Decrease of Affected Business	Percent of Decrease of Total Business
Minnesota Local Business:							
Substantially none of this is hauled over 300 miles	$16,803.69	$889.87	$854.64	$767.90	$86.95	9.77%	0.52%
Interstate hauled over 300 miles	72,003.63	70,924.71	70,175.80	43,575.73	26,600.07	37.50%	36.94%

Business Local to All States and Interstate:			Loss			Loss	
Hauled 300 miles or less	$287,020.12	@ 9.77%	$28,041.87	@	0.52%	$1,492.50	
Hauled over 300 miles	72,003.63	@ 37.50%	27,001.46	@	36.94%	26,600.07	
Total	$359,023.75	@ 15.331%	$55,043.33	@	7.825%	$28,092.57	

Total Soft Coal Business for fiscal year ending June 30, 1906, $2,236,764.61. Loss @ 15.331% = $342,918.28.
@ 7.825% = 175,026.83.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-C. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Wheat, Flax and Flour Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business: Under Present Tariff	Voluntary Tariff Sept. 1906	Under Legislative Tariff or the principle of said tariff extended to long haul business	Loss	Percent of Decrease of Affected Business	Percent of Decrease of Total Business
MINNESOTA LOCAL BUSINESS:							
Substantially none of this is hauled over 300 miles	$55,078.78	$44,755.98	$36,531.25	$33,639.47	$2,891.78	6.46%	5.25%
Interstate hauled over 300 miles	735,543.84	730,388.83	712,416.79	582,739.82	159,676.97	21.86%	21.71%

BUSINESS LOCAL TO ALL STATES AND INTERSTATE:							
Hauled 300 miles or less	$465,647.19	@ 6.46%	Loss $30,080.80	@ 5.25%	Loss $24,446.48		
Hauled over 300 miles	735,543.84	@ 21.86%	160,789.88	@ 21.71%	159,676.97		
Total	$1,201,191.03	@ 15.800%	$190,870.68	@ 15.328%	$184,123.45		

Total Wheat, Flax and Flour Business for fiscal year ending June 30, 1906 $4,956,332.83. Loss @ 15.800% = $787,561.20.
@ 15.328% = 759,706.70.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-D. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Coarse Grain Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business					
		Under Present Tariff	Voluntary Tariff Sept. 1906	Under Legislative Tariff or the principle of said tariff extended to long haul business	Loss	Percent of Decrease of Affected Business	Percent of Decrease of Total Business
Minnesota Local Business:							
Substantially none of this is hauled over 300 miles	$13,063.06	$8,925.69	$7,996.18	$5,537.72	$1,458.46	16.34%	11.16%
Interstate hauled over 300 miles	150,847.94	150,847.94	148,800.70	90,308.33	58,492.37	38.78%	38.78%
Business Local to All States and Interstate:			Loss		Loss		
Hauled 300 miles or less	$82,276.15 @ 16.34%		$13,443.92	@ 11.16%	$9,182.02		
Hauled over 300 miles	150,847.94 @ 38.78%		58,492.37	@ 38.78%	58,492.37		
Total	$233,124.09 @ 30.858%		$71,936.29	@ 29.029%	$67,674.39		

Total Coarse Grain Business for fiscal year ending June 30, 1906, $974,314.56. Loss @ 30.858% = $300,533.90.
" @ 29.029% = 282,533.77.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-E. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Lumber and Shingle Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business				Percent of Decrease of Total Business
		Under Present Tariff	Under Legislative Tariff or the principle of said tariff extended to long haul business	Loss	Percent of Decrease of Affected Business	
MINNESOTA LOCAL BUSINESS:						
Substantially none of this is hauled over 300 miles	$38,730.68	$3,339.57	$2,624.56	$715.01	21.41%	1.85%
Interstate hauled over 300 miles	1,589,170.46	1,573,866.58	1,111,254.58	462,612.00	29.39%	29.11%
BUSINESS LOCAL TO ALL STATES AND INTERSTATE:				Loss		Loss
Hauled 300 miles or less	$276,250.79	@ 21.41%	$ 59,145.29	@ 1.85%		$5,110.64
Hauled over 300 miles	1,589,170.46	@ 29.39%	467,067.20	@ 29.11%		462,612.00
Total	$1,865,421.25	@ 28.209%	$526,212.49	@ 25.073%		$467,722.64

Total Lumber and Shingle Business for fiscal year ending June 30, 1906, $11,316,235.57 — Loss @ 28.209% = $3,192,196.80.
" @ 25.073% = 2,837,319.74.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

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COMPLAINANT'S EXHIBIT 62-V. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Cattle and Sheep Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business: Under Present Tariff	Total Affected Business: Under Legislative Tariff or the principle of said tariff extended to long haul business	Total Affected Business: Loss	Total Affected Business: Percent of Decrease of Affected Business	Percent of Decrease of Total Business
MINNESOTA LOCAL BUSINESS:						
Substantially none of this is hauled over 300 miles	$10,202.49	$4,676.94	$4,340.02	$327.92	7.01%	3.20%
Interstate hauled over 300 miles	278,318.96	274,781.56	209,730.56	65,051.00	23.67%	23.37%

BUSINESS LOCAL TO ALL STATES AND INTERSTATE:				Loss			Loss	
Hauled 300 miles or less	$65,550.71	@	7.01%	$4,595.10	@	3.20%	$2,097.62	
Hauled over 300 miles	278,318.96	@	23.67%	65,878.10	@	23.37%	65,051.00	
Total	$343,869.67	@	20.494%	$70,473.20	@	19.527%	$67,148.62	

Total Cattle and Sheep Business for fiscal year ending June 30, 1906, $1,460,280.98. Loss @ 20.494% = $289,209.98.
@ 19.527% = 285,149.07.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

COMPLAINANT'S EXHIBIT 62-G. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Hog Business—October 1905 and April 1906—"MINNESOTA RATE CASE."

	Total Revenue	Total Affected Business: Under Present Tariff	Total Affected Business: Under Legislative Rates or the principle of said Rates extended to long haul business	Total Affected Business: Loss	Total Affected Business: Percent of Decrease of Affected Business	Percent of Decrease of Total Business
	No local business in Minnesota in October 1905. Local business in April 1906 not affected. The loss is figured on actual business year ending July 31, 1906, being					
MINNESOTA LOCAL BUSINESS:						
Substantially none of this is hauled over 300 miles	$1,209.09	$904.13	$814.77	$89.36	9.88%	7.39%
Interstate hauled over 300 miles	19,825.13	19,778.93	14,781.66	4,997.27	25.27%	25.21%
BUSINESS LOCAL TO ALL STATES AND INTERSTATE:						
Hauled 300 miles or less	$7,866.70 @ 9.88%		Loss $777.23 @ 7.39%		Loss $581.35	
Hauled over 300 miles	19,825.13 @ 25.27%		5,009.81 @ 25.21%		4 997.27	
Total	$27,691.83 @ 20.898%		$5,787.04 @ 20.145%		$5,578.62	

Total Hog Business for fiscal year ending June 30, 1906, $117,546.89. Loss @ 20.898% = $24,564.95.
@ 20.145% = 23,679.82.

Office of Auditor Freight Receipts,
St. Paul, Minn., Sept. 4, 1908.

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COMPLAINANT'S EXHIBIT 62-H. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Analysis of Merchandise and Class Rate Business—October, 1905—"MINNESOTA RATE CASE."
Based on business forwarded in that month.

	Total Revenue	Total Affected Business				Percent of Decrease of Total Business
		Under Present Tariff	Under Commission's Rates or the principle of said rates extended to long haul business	Loss	Percent of Decrease of Affected Business	
MINNESOTA LOCAL BUSINESS:						
Substantially none of this is hauled over 300 miles	$74,913.85	$45,021.73	$36,510.22	$8,511.51	18.91%	11.36%
Interstate hauled over 300 miles	862,293.70	701,246.89	401,914.38	299,332.51	42.69%	34.71%

BUSINESS LOCAL TO ALL STATES AND INTERSTATE:						Loss
Hauled 300 miles or less	$609,310.09	@	18.91%	$115,220.54	@ 11.36%	$69,217.63
Hauled over 300 miles	862,293.70	@	42.69%	368,113.18	@ 34.71%	299,332.51
Total	$1,471,603.79	@	32.844%	$483,333.72	@ 25.044%	$368,550.14

Total Merchandise and Class Rate Business for fiscal year ending June 30, 1906, $20,253,980.15. Loss @ 32.844% = $6,652,217.24.
" @ 25.044% = $5,072,406.79.

Office of Auditor Freight Receipts.
St. Paul, Minn., Aug. 31, 1908.

MERCHANDISE AND CLASS RATE BUSINESS.

Under Article XIII of the Bill of Complaint as amended we were required to determine:

First: The loss that would accrue by the application of the rates at issue to the Minnesota Intrastate business.

Second: The loss that would accrue by the application of the rates at issue (or those rates extended on the principle of a constant hauling charge) to the long haul Interstate business which was assumed to be the business carried more than 300 miles.

To determine the first proposition the waybills covering Minnesota true Intrastate business were examined with the results shown on the first line, as follows:

The amount under the caption of "Total Revenue" $74,913.85 is the revenue that was actually received on all such business regardless of whether or not it would be reduced by the application of the rates in the tariffs at issue.

The $45,021.73 in the column "Under Present Tariff" represents the revenue that was actually received by the Company from business that was affected by the application of the rates at issue. The $36,510.22 represents the revenue that the company would have received at the new rates. The difference between the two latter sums of $8,511.51 being the reduction in revenue.

The $8,511.51 divided by the $45,021.73, original revenue on affected business, reduces the loss to a percentage basis, being 18.91 per cent.

The $8,511.51 divided by the total original revenue of $74,913.85 reduces the loss to a percentage basis, being 11.36 per cent of the business whether affected or not affected by the rates at issue.

The second proposition was determined by re-rating the waybills and applying to them the rates included in the tariffs in question, or those rates extended on the principles embodied in the tariffs.

If on through billing the Northern Pacific proportion was in excess of what the rates at issue would produce for the same haul over the N. P., the difference was considered a loss on the assumption that our proportion of a through rate could not exceed the local rate. The results are shown in the second line of the statement. The remarks as to the items on the first line of the statement under corresponding captions apply to the Interstate business hauled over 300 miles.

Apply the percentages of loss so determined to the business for the month of OCTOBER.

Third Line—Business local to all states and Interstate hauled up to 300 *miles:*

The $609,310.09 represents the original revenue received from all Intrastate business plus the revenue received from Interstate business hauled up to 300 miles, and to this sum were applied the percentages shown on the first line of the statement, producing a loss of $115,220.54 on the basis of the business affected, or a loss of $69,217.63 on all the business whether affected or not affected by the change in rates.

Fourth Line—Interstate business hauled over 300 *miles:*

The $862,293.70, it will be observed, is the Interstate business that is shown on the second line of the statement, and which has heretofore been explained. Applying to this the percentages shown on the second line of the statement, and we arrive at a loss of $368,113.18 based on business affected, and $299,332.51 on all the business, affected and not affected, by the application of the new rates, or those rates extended.

The $1,471,603.79 is the original revenue received from all this class of business during the month in question, and dividing this into the $483,333.72 produces the average loss on all the business (Intrastate and Interstate) affected—32.844 per cent—and divided into the $368,550.14 produces the average loss on the basis of all the business, whether affected or not affected, of 25.044 per cent.

REDUCTION IN REVENUE FOR ONE YEAR.

Having determined the percentage of loss on the basis of the business affected, and on the basis of the whole business carried, it was then necessary to determine what the effect would be upon the business of an entire year. Assuming that the month of October was a fair test on a percentage basis (and not on the basis of multiplying the result by 12 and taking that figure as representing the loss for one year) the last two lines show what the reduction would amount to, being on the basis of affected business $6,652,217.24, and on the basis of the business affected and not affected by the rates in question $5,072,406.79.

In the case of merchandise and class rate business the task of revising the thousands of waybills involved was an immense one, and this made it compulsory that the examination be confined to one month in order that the current freight accounting work be not stopped to the prejudice of the com-

pany's interests. It may be well to state, however, that we had previously been requested to investigate the question of these reductions as applying to the Minnesota business, and the figures below show the result of such examination:

	Reduction.
April, 1905	19.90 per cent
October	18.91
June, 1907	18.29
July	18.15
August	18.68
	93.93 per cent
Average for five months	18.79 per cent

COMPLAINANT'S EXHIBIT 63. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY.

Statement showing the revenue that was received in the State of Minnesota from commodities included in the tariff prescribed by Act of the Legislature of the State of Minnesota, approved April 18, 1907, also Merchandise and Class Rate Business included in the orders of the Minnesota Railroad and Warehouse Commission Sept. 6, 1906 and May 3, 1907; the percentage of loss that would have resulted by application of the maximum rates included in said Act and orders, and the loss of revenue that would have accrued in the fiscal year ending June 30, 1906.

	Total Intrastate Revenue collected	Percentage of loss on the basis described in the caption (Affected Business)	Loss that would have accrued	Percentage of loss on the basis described in the caption (Total Business)	Loss that would have accrued
Hard Coal	$33,193.29	5.36%	$1,779.16	2.76%	$916.13
Soft Coal	95,097.48	9.77%	9,291.02	0.52%	494.51
Wheat, Flax and Flour	200,200.08	6.46%	12,932.93	5.25%	10,510.50
Coarse Grain	47,480.34	16.34%	7,758.29	11.16%	5,298.81
Lumber and Shingles	193,385.10	21.41%	41,403.75	1.85%	3,596.96
Cattle and Sheep	54,075.84	7.01%	3,790.72	3.20%	1,730.43
Hogs	1,209.09	9.88%	119.46	7.39%	89.36
Total Commodities	$624,641.22	12.34%	$77,075.33	3.62%	$22,636.70
Merchandise and Class Rate Business	860,209.30	18.91%	162,665.58	11.36%	97,719.78
Total	$1,484,850.52	16.15%	$239,740.91	8.11%	$120,356.48

Office of Auditor Freight Receipts,
St. Paul, Minn., Dec. 18, 1908.

COMPLAINANT'S EXHIBIT 64. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY

Statement showing specific items entering into increased cost of operation in 1907 over 1906.

	Total number of days worked 1907	Average daily compensation		Incre'd average daily compensation	Average Rate 1908	Inc'd average over 1906
		1906	1907			
General Office Clerks	376,355	$2.28	$2.34	.06	$2.33	.05
Station Agents	197,867	2.27	2.38	.11	2.42	.15
Other Station Men	799,969	1.96	2.08	.12	2.11	.15
Enginemen	398,580	4.88	5.02	.14	5.65	.77
Firemen	398,580	3.10	3.21	.11	3.61	.51
Conductors	296,961	3.75	3.83	.08	4.09	.34
Other Trainmen	955,033	2.56	2.71	.15	2.87	.31
Machinists	337,213	2.95	3.09	.14	3.18	.23
Carpenters	519,488	2.46	2.58	.12	2.65	.19
Other Shopmen	1,054,448	2.25	2.30	.05	2.45	.20
Section Foremen	352,037	1.81	2.04	.23	2.14	.33
Other Trackmen	3,021,634	1.45	1.66	.21	1.64	.19
Switchmen, Flagmen & Watch.	105,358	1.57	1.64	.07	1.80	.23
Telegraph Oper. & Dispatchers	330,344	2.51	2.61	.10	2.61	.10
Employes-acct. floating equip..	11,707	2.48	2.58	.10	2.63	.15
All other employes & laborers.	1,135,994	1.96	1.97	.01	2.01	.05
	10,291,568	2.22	2.32	.10	2.42	.20

Increases in 1907 Over 1906

10,291,568 days @ 10c =	$1,029,156.80
2,602,664 tons of coal @ $0.305 =	793,812.52
30,577 oak ties @ 6.9c =	2,109.81
730,381 tamarack ties @ 14.5c =	105,905.24
1,080,073 fir ties @ 10.3c =	111,247.52
	$2,042,231.89
Increased ratio of operating expenses 4.178% on gross earnings of $68,447,453.65 =	$2,859,734.61

The increase in 1907 based on rates of pay and prices of material, year ending June 30th, 1908 would have been—

10,291,568 days @ 20c =	$2,058,313.60
2,602,664 tons coal @ 36.7c =	955,177.69
30,577 oak ties @ 25.4c =	7,766.56
730,381 tamarack ties @ 22.2c =	162,144.58
1,080,073 fir ties @ 14.9c =	160,930.88
	$3,344,333.31

COMPLAINANT'S EXHIBIT. MORGAN. (N. P.)

MINNESOTA RAILROAD AND WAREHOUSE COMMISSION.

Office of Engineer for Valuation of Railways.

St. Paul, Minn., December 1, 1908.

Hon. Ira B. Mills, Chairman; Hon. Charles F. Staples, Hon. William E. Young, Railroad and Warehouse Commission of the State of Minnesota.

Gentlemen: In presenting my report upon the cost of reproduction and the present value of the physical properties of the railroads of Minnesota, I thank your Commission for its uniform courtesy and support, which has been made manifest to me at all times during the period of its preparation.

FOREWORD.

The stimulating effect of a conviction, that a valuation of the physical properties of railways is practicable, is on the other hand not without the deterring influences which an opposing belief exerts. The work itself must in each case be left to answer that question, not in an academic sense alone, but upon broader ground, that the promotion of a better understanding and of the equities involved in unsettled problems may not be halted under the influences of either aversion or trepidation.

Some of the circumstances attaching to this work at the beginning and others which have arisen during its progress, are of such a nature as have led me to a more argumentative discussion of the subject than would perhaps seem justifiable were it possible to have proceeded under the guidance of either firmly established precedents, or under the directing influences of such decisions of the courts as would have definitely interpreted the principles upon which such an inquiry shall best be founded and which it may reasonably be assumed are not the same for all purposes in which the valuation of railway property may be found serviceable.

Since the inauguration of this inquiry, litigation has been commenced and is now pending in the Federal Court in respect of the reasonableness of certain rates prescribed by the Legislature and by your Commission, which in the process of adjudication is not unlikely to lead to a review of the theories and principles upon which the reproduction cost and present value of the railways of Minnesota is presented.

Intelligent men differ in their views as to the literal interpretation of "cost of reproduction," of the proper treatment to be accord-

ed the unearned increment in the value of lands for right of way, yards and terminals and also many other questions of importance arise which for various reasons of a legal character have very properly led to the amplification of the data that the Commission might be in the possession of such facts, as both it and Counsel deem most expedient for the best interests of the State.

In order that the task undertaken by me might be accomplished at all, it became necessary to adopt a fixed hypothesis upon which to proceed, but in broadening the field for the greatest practical employment of the data now at command, it cannot be asserted that, by considerations of public utility, modifications according to circumstances which may appear, will not in the final determination enable a more just and equitable application to be made of it than would otherwise be possible. This is most likely to prove true in the event that certain elements, proper to be considered, are either obscure or unavailable; a condition very probable to be met with from a great variety of causes, some of which have been suggested in this report. Under instructions from your Commission, I have therefore prepared two sets of estimates for each of the railway properties, which are designated Estimate "A" and Estimate "B"; the tables of comparisons properly belonging to each estimate are correspondingly designated.

Estimates "A" and "B" are alike in all respects, except that Estimate "A" includes the multiples applied to the lands for right of way, yards and terminals. Estimate "B" excludes the multiples and the figures inserted are those representing the true value of lands, for purposes other than railway uses, as determined from the investigations made and described in full in this report. This difference respect to the lands also affects all items which are measured in percentages of the total.

REPORT UPON THE COST OF REPRODUCTION AND THE PRESENT VALUE OF THE PHYSICAL PROPERTIES OF THE RAILROADS OF MINNESOTA

In conformity with our correspondence and the resolution unanimously adopted by your Board, I have the honor to submit herewith my report upon the cost of reproduction and the present value of the physical properties of the railways of the state of Minnesota.

The very complete understanding the Commission already has of the conduct of this inquiry would, under ordinary circumstances, render it sufficient perhaps to transmit to you the results of the in-

vestigation without special comment, but in view of the magnitude of the undertaking, the importance of the truth of the considerations upon which it is founded and of the public and corporate interest manifestly present respecting the preparation of data which in divers ways is not unlikely to have a bearing in the determination of important questions, seems to demand such explanation as is necessary to make clear the methods under which the inquiry has been carried to a conclusion, also that reference be made to some of the conditions met with which from their nature and extent, become potent influences in affecting the value of the physical properties of the railways of the state.

In the preparation of such a report as you requested me to make, the data are so very numerous and extensive that the systematic conduct of the work which I adopted with your approval has been of the utmost importance, indeed indispensable, and it is proper for me to state that the estimates as herewith submitted have been prepared with a full impression of the complex character of the subject and of the necessity of reasonably accurate conclusions. Careful consideration of the scope of the inquiry as outlined by your Commission led me to the suggestion of a plan, the fulfillment of which would in the most practical way place at the disposal of the State complete engineering data of its railways in such form and in such detail as it is believed will be essentially useful under all circumstances which may arise hereafter. It therefore became necessary to find:

First: The cost of acquiring presently the lands and other real estate owned and occupied by the railroad companies for railway purposes, also the cost of reproducing new the physical elements entering into the construction of the lines with all appurtenances; assuming that the location, environments and conditions affecting each railway and governing such costs of acquirement and reproduction are as they exist today.

Second: To establish the depreciation in the value of the physical properties due to the effect of the elements and to the wear and tear by use, to be determined from an actual examination of the railways, thus enabling a personal knowledge of the standards of construction and maintenance and of the conditions affecting each property.

The results obtained from these methods of procedure will be referred to as:

First: "Cost of Reproduction."
Second: "Present Value of the Physical Properties."

It is unnecessary for me to discuss at length the reasons for the adoption of the general plan by which the work has been carried to a conclusion, other than to state that it has afforded probably the most stable basis that can be reasonably devised for systematic and thorough consideration of the problem of physical values, resembling in some respects the inquiry into the value of Pacific railroads made in 1887 under the direction of the United States Senate Commission, and with which work I was intimately associated, and it also has features of the Michigan and of the Wisconsin Railroad Appraisals made for taxation purposes.

Acknowledgments are due Mr. Richard Price Morgan, C. E. D. Eng., Chief Engineer of the United States Senate Commission; Mr. Mortimer E. Cooley, Engineer of the Michigan Tax Commission; Mr. William D. Taylor, Engineer of the Wisconsin Tax Commission, and his successor, Mr. William D. Pence, for professional courtesies extended which have been helpful in respect to the work in Minnesota.

Upon the adoption of the plan proposed for collating all of the essential facts concerning the physical elements of the railways, the manner in which the data might be obtained, became a matter of much importance in respect not only as to the time required for the work, but also the cost to the State.

The acquirement of all of the facts and data independently of co-operation with the railway companies with a degree of accuracy considered necessary to an intelligent determination of values, seemed to be impracticable because of the great expense involved, and furthermore, such a plan would in the end doubtless lead to a duplication of the work; the railway companies undoubtedly challenging all of the results of such a valuation until its accuracy and reasonableness had been tested by their own investigations. There are other considerations of primary importance which precluded the adoption of entire origination of data, among which may be mentioned the fact that, many engineering works have so completely changed the topography of a locality and left so few remaining evidences of the original conditions that without either personal knowledge or reliably acquired data, any estimate which could possibly be made, independently and from observation alone, would be too conjectural to be of value.

For these reasons it was thought that a better understanding of the purposes of the Commission would result from a conference with the representatives of the several railway companies and that at such conference opportunity would be afforded the Commission to ascertain from them to what extent they would be willing to co-operate

with the Commission in furnishing data, facts and general information upon which to estimate the cost of reproducing their respective properties.

At a meeting held in the offices of the Commission, in the State Capitol, January 26, 1906, more than 95 per cent of the railroad mileage of the state was represented by the general officers of the railroad companies and a plan of co-operation was outlined.

The conference disclosed a willingness on the part of the railroad companies to aid the Commission and its engineer in obtaining a valuation of their properties. Question was raised as to using average prices for labor and materials for a five (5) year period; and in deference to the wishes of the representatives of the railways it was agreed that the average prices prevailing for the year 1905 should be employed.

A review of prices for the five year period ending June 30, 1907, enables it to be reasonably assumed that the prices generally prevailing for the year 1905 are in most respects as near the average prices for the five year period as are practicable for the purposes of this inquiry; detailed analysis of which, leads to modifications unimportant so far as affecting the final estimates of reproduction cost.

It must be recognized, however, that the cost of labor and of materials entering into the construction of railways have averaged higher since 1902 than at any previous period and that no marked recession in prices began until the early part of this year, consequently, the effect upon reproduction cost is of such importance that your attention is directed to the conditions referred to, because abstract comparisons of the estimated cost of reproducing the railroads of Minnesota and elsewhere in other States, not unlikely to be attempted, would lead to erroneous conclusions and the analogy cannot be sustained in fact unless brought to a common basis. In this regard an analysis of the units of cost, as well as the dissimilar characteristics of railway construction, will always challenge in a greater or less degree the relevancy of such comparisons as reflecting the true measure of either.

Further reference to the conference and of the plan proposed and adopted is made in the letter of instructions embodied in this report.

On March 12, 1906, in pursuance of the understanding, had with the railway companies, blank forms were sent to each company upon which to schedule and appraise the cost of reproduction and the present value of its physical properties. The thirty-one (31) forms prepared for this purpose itemized the usual characteristics of railway construction and were in sufficient detail to enable an identifica-

tion of the numerous elements essential in any intelligent consideration of physical values.

The following letter of instructions accompanied the forms and was suggestive of methods which would enable a segregation of items and values and produce a uniformity in the returns, susceptible of detail analysis:

"St. Paul, Minn., March 12, 1906.

"The official announcement of the Railroad and Warehouse Commission of the state of Minnesota, dated January 22, 1906, and addressed to the managing officers of the respective railway companies whose lines are operated in this state, set forth briefly the intent of the commission to appraise the value of railway property in the state of Minnesota and invited a conference with the representatives of the railway companies to discuss matters pertaining to the work.

The meeting of January 26, 1906, held in the Capitol Building in pursuance of this announcement and request, enabled the commission to present to the railway companies the general plan upon which it desired to proceed, and to ask the co-operation of the companies in furnishing data, estimates of cost and such other information and assistance, as is deemed essential to the purposes of the commission in carrying to a conclusion the investigation which has been undertaken by it.

A general discussion of the plan of procedure presented to the railway companies, resulted in modifying the time period proposed to be used in determining the average prices of labor and material which form the basis upon which to estimate the cost of reproducing the railways complete with all appurtenances."

GENERAL PLAN FOR ESTIMATING THE VALUE OF THE PHYSICAL PROPERTIES OF THE RAILWAYS IN MINNESOTA

BASIS

"In estimating the value of the physical, real and personal properties of the railway companies in the state of Minnesota, an estimate of the cost of reproducing them new is deemed essential as the prime factor.

In respect to real estate and construction, this prime estimate is to be made as though the existing railways were not constructed and that the regions through which they now extend were occupied as now, by the settlements, improvements and varied industries.

The prime estimate of the cost of the construction and of the equipment of the railways new with all appurtenances, will be obtained by an average of the prices paid for labor, material, locomotives, cars, tools and other essential elements, for the year ending December 31, 1905.

The present value of the physical properties of the railways will be obtained by deducting from the cost of reproduction all deteriorations by time and use, on the data corresponding to that of the estimated cost of reproduction.

Forms for the details of the foregoing and any other elements that may arise essential to the purposes of the commission, will be prepared from time to time and furnished to the railway companies.

In arranging forms for recording the physical elements of the railways, they have been, so far as practicable, divided substantially to correspond to the usual departments, as follows:

Land and Right of Way,
Engineering,
Maintenance of Way,
Bridge and Building,
Motive Power and Machinery,
Car,
Signal,
Telegraph.

"It has been found impracticable to attempt to itemize under specific headings all of the various kinds of physical property belonging to the railway companies. The detail forms, 1 to 28, as adopted by the commission, cover the more important items. Such property as is not provided for on the detail sheets may be conveniently included on the Section Appraisal Sheet, Form 50.

To facilitate the work of verification, it is desired that the estimation of the various lines of railway be divided generally into sections of about 100 miles each, but for branch lines, these sections may be more or less than 100 miles, according to circumstances which may reasonably govern as to conditions and convenience in the work.

It is very important that all of the departments mentioned should understand alike the subdivision of the lines into sections, to the end that each set of forms may contain information pertaining only to that particular section of the line. This is essential to enable the compilations on forms 50 and 51 for each section, to be uniform and readily made.

It is very desirable that the lines and properties in the cities of St. Paul, Minneapolis and Duluth be treated as independent sec-

tions, and in arranging subdivisions of the lines it may be also found desirable that other cities be shown as independent sections.

Attention is called to forms 25, 26, 27 and 28, covering motive power and rolling stock. These items will be compiled irrespective of the sectional divisions into which the lines may be divded, and for interstate railways will be apportioned to this state on an engine and car mileage basis, except where some other basis for the division of these items may be found more equitable in arriving at an accurate assignment to Minnesota.

In respect to motive power on interstate railways, it is probable that the regular assignment of power to the respective operating divisions will enable convenient apportionment to be made to Minnesota, taking into account the cost of reproducing all locomotives operated within the state and adding thereto the cost of reproducing all other locomotives that are operated partly within and without the limits of the state, in the proportion that the mileage of such engines in Minnesota bears to their total mileage on the operating division.

In determining the present value of the physical properties in Minnesota, no instructions are given as to how the percentages of depreciation shall be arrived at. In making the returns, however, it is desirable that information in respect to the methods used be given in sufficient detail to enable ready and intelligent verification by the engineer of the commission.

In conformity with the foregoing, I send to you under separate cover a supply of blank forms for use in recording and appraising the physical elements of your lines in Minnesota. If found to be insufficient for the needs of your company, additional blanks will be furnished on application.

It is the expressed wish of the commission that your report be received as soon as practicable, and in order to facilitate my work I will be very glad to receive in advance, detail sheets Nos. 16, 18, 19, 20 and 21 at any time feasible for you to forward them.

In your acknowledgement, will you kindly state the time, approximately, when I may expect to receive the report of your company?"

Subsequently and under date of April 25, 1906, request was made upon each of the railway companies for profiles of its lines in Minnesota, as follows:

"In pursuance of the method adopted January 26, 1906, at the meeting of the Railroad and Warehouse Commission with the representatives of the railway companies for estimating the cost of reproducing the railways of Minnesota, and which is being carried into

effect, I expect soon to enter upon my work of verifying the data and estimates furnished by the railway companies.

"To make this work as convenient and accurate as feasible, it is essential that profiles of their lines in Minnesota be furnished by each railway company, with the following data corresponding to the subdivision of the lines into 100 mile sections or less, to which reference was made in my letter of March 12th:

First: Profiles showing the ground line and the original grade line; the location and kind of bridge, culvert or other openings provided in the road bed; alignment notes.

Second: Where changes of grade have been made the revised grade line to be shown on profile.

Third: Where changes of line have been made which cannot be conveniently shown on the profile, a separate map and profile of such new work to be attached.

"It will greatly facilitate my work if this information is furnished promptly."

With the inauguration of the work as above outlined and pending the receipt of either partial or full data respecting the physical properties of the railway companies, the force which could be utilized to advantage was necessarily small, but was increased from time to time to meet the requirements of a prompt prosecution of the work.

Inquiry was immediatly undertaken to ascertain prices for labor and materials, and special agents were appointed to gather data in respect to the value of lands adjacent to all lines of railway in the state, from which to determine the cost of reproducing the right of way owned and occupied by the railway companies, for railway purposes. This work was carried forward in accordance with the following general instructions:

LETTER OF INSTRUCTIONS TO SPECIAL AGENTS IN SECURING DATA AS TO LAND VALUES.

"As an aid in determining the cost of reproducing the right of way owned and occupied by the railway companies in the state of Minnesota, it is desirable and becomes your duty as special agent to ascertain the true or normal value of lands and real estate located adjacent to the several railways in each of the counties of the state.

There are two sources of information which at this time appear practical and so far as possible should be employed in your researches.

First: You are to examine the record of transfers of property subsequent to January 1, 1900, in the various county seats, obtain-

ing therefrom all transfers within one and one-half miles on each side of center line of the main track of each line of railway, traversing the county, and in such instances as the records do not show sufficient activity in the sale of property to enable intelligent and fairly complete data, it is desirable to extend the limitations of one and one-half miles in order to obtain more complete information.

Second: It will be necessary to make inquiry among real estate men, bankers and busines men, as to the value of the lands, to enable, as far as practical, confirmation of the data obtained from the county records. Each record of transfer must show book and page, town, range and section, acres involved, date of transfer and the consideration. Omit all transfers of property, which the records show to have been made for either a nominal consideration or which represent undivided interests, sheriff's sales or foreclosures.

Give the names and addresses of parties consulted, together with the expressed views of each as to land values.

In examining the records you will doubtless find transfers of land to railway companies. These should be carefully noted and indexed separately in your record books, omitting all transfers to railway companies which are for nominal consideration or which represent easements.

Careful and complete notes must be kept of all information obtained and nothing left undone which is essential and necessary to ascertain the true value of lands adjacent to the respective lines of railway. When the work for a county is completed, forward the record book to this office together with a copy of the latest county map available.

Your movements will be directed from this office in such a way as is deemed most expeditious in accomplishing the results sought and you are urged to make progress as rapidly as is consistent with accuracy and thoroughness."

The work undertaken by the special agents in this field of the inquiry continued without interruption. Many special investigations and inquiries have been necessary to definitely establish a basis for determining the cost of reproducing the lands owned and used by the railway companies for right of way and terminals. Probably no feature of the valuation required more thorough or painstaking research and care. While there are other items connected with the work upon which there may be room for a conscientious difference of opinion, they are not so important in affecting results as are the values attaching to the lands.

In reaching a determination of the true value of lands adjacent to the railways from which to consider the cost of reproducing the

right of way there has been taken into consideration more than 55,000 bona fide sales of property, representing more than 1,300,000 acres of land and involving considerations approximating $100,000,000 which, supplemented with the opinions of disinterested parties and with personal observations along each line of railway in the State, formed the basis for establishing the true value of lands abutting the right of way of the railway companies.

RIGHT OF WAY VALUES.

For ordinary purposes, the true value of land can be ascertained with a degree of accuracy which in general ought to enable the avoidance of any very wide differences of opinion regarding it, but the acquirement of lands for railway purposes presents conditions much more difficult to determine.

The purchase of lands for a railroad right of way require the consideration of two elements: first, the fair value of the land taken, and second, the damages to the residue in consequence of a part of the tract having been taken for railroad purposes.

The element of damages is dependent upon a variety of conditions, several of which may be mentioned as: the location and direction of the proposed railroad with respect to the boundaries of the property; the inconveniences and dangers likely to be suffered and attributable to the construction and operation of the line, such as the separation of the owner's house from his barn, or of his barn from his well. The conditions arising and connected with the purchase of right of way are diversified according to individual circumstances and in no small degree is the cost of the land to the railway company affected by the manner of its acquirement, i. e.—by agreement and purchase or by condemnation proceedings; the latter process results in awards often equal to and sometimes in excess of the consideration originally demanded.

The influence of public sentiment for or against the construction of a line of railway is a most potent factor in respect to cost.

In varying degrees, these and other considerations make the lands purchased for a railroad right of way, usually more costly than the true or normal value of lands for other purposes.

The variety of conditions and circumstances which attach to each individual purchase of right of way, if considered separately, could but lead to a maze of uncertainty because the actual cost of the individual parcels acquired, ranges between a nominal amount and more than ten times the true value of adjacent lands.

From the facts which have been gathered in respect to land values and right of way costs, it appeared practicable to establish

a general rule applicable to the problem of right of way values as a whole. There are, however, individual examples which owing to eligibility and peculiar adaptation of certain lands to the purposes of transportation, are extremely difficult to determine purely by rule with a degree of accuracy, perhaps entirely convincing.

It is, therefore, proper to state that in all of the work relating to the value of lands and to the appraisal in its entirety, the application of rules for the determination of reproduction costs have not been adhered to so rigidly as to preclude the rejection of results which it could be seen were plainly and palpably inconsistent and at variance with either professional intelligence or common sense. Every means which seemed to furnish reliable information have been availed of, and bona fide sales of lands to railway companies covering the more recently constructed lines consisting of more than 7,000 acres located in different parts of the state for which more than $4,200,000 was expended in its acquirement, has been employed in determining the relation between the average normal value of lands and their average actual cost to the railway companies.

Extensive data of experiences in other States were also obtained, which are not only corroborative of the results of this inquiry, but in general sustain the application as related to the railways of the State of Minnesota.

Careful and full consideration of all information made available for establishing the value of the right of way owned and used by the railway companies for railway purposes, led to the conclusion that in the state at large exclusive of the three terminals of St. Paul, Minneapolis and Duluth, a multiple of three (3) applied to the true value or normal value of lands, as obtained from the transfers, would in general satisfy the conditions. The details of this investigation are made a part of this report, Appendix "C," and your attention is especially called to the data in respect to the acquirement of the right of way of the Illinois Central, between Lyle and Glenville, in the counties of Mower and Freeborn, in which the purchase of right of way by agreement with the owners of the land and that obtained by condemnation proceedings are shown separately. The figures are of interest in connection with this subject, and show that, of 35 per cent of the right of way acquired by condemnation proceedings, the company paid about 4½ times the average true value of the lands, and of the 65 per cent purchased by agreement the price paid was but 1.7 times the average true value of the lands.

These figures cannot be taken abstractly as representing the relation existing between the two methods by which right of way is acquired, because, the measure of damages may be large or small

according to circumstances not unlikely to very materially alter the ratios; however, from the facts gathered in this and other instances it may be accepted as a general rule that where right of way is obtained by condemnation, the price paid per acre is usually more than that of lands purchased by agreement.

TERMINAL VALUES.

The basis for the determination of the value of lands in St. Paul, Minneapolis and Duluth was the "sales method" familiar to all those who have investigated the subject of taxation and real estate values. The process by which the sales method is applied, requires no lengthy description. Each sale is accompanied by two values,—the selling prices and the assessed value from which the ratio of true to assessed value is obtained. The problem of the value of real estate in these cities was worked out on the general formula, that:

"As the assessed value of lands sold, is to the consideration paid, so is the assessed value of the real estate for the entire assessment district to the full value thereof."

For more particular and detailed information as to the "sales-method," reference is made to the addresses of Mr. T. A. Polleys, Tax Commissioner of the Chicago, St. Paul, Minneapolis & Omaha Railway, and Dr. Thos. S. Adams, Professor of Economics, University of Wisconsin, in the proceedings of the Minnesota Academy of Social Sciences, Vol. I, 1907.

During the past six years the general transactions in real estate in St. Paul, Minneapolis and Duluth have been extensive and during the same period the purchase of terminal property by railway companies in these cities aggregate more than 320 acres, costing the companies nearly three million dollars.

How much the railway companies paid for these properties in excess of their normal value, was determined from the relation their assessed value and sale price bore to the assessed value and sale price of all other lands transferred in the respective cities, that were not acquired for railway purposes. Investigations made by a special tax committee of the Council of the city of St. Paul and submitted to that body under date of February 5, 1907, showed that property in the city of St. Paul was on an average assessed at about 60 per cent of its selling price. The subject of the inquiry made by this committee was subsequently more elaborately investigated by the State Tax Commission, not only with respect to the city of St. Paul but also for the cities of Minneapolis and Duluth, covering in all more than 25,000 sales of property.

In each city the ratio of assessed value to true value was therefore made available from reliable sources and was used as one of the bases for establishing the cost of reproducing the terminal properties of the railway companies.

The following example will illustrate the practical workings of the principle upon which terminal property values were established:

An important line owning terminals in the City of St. Paul recently purchased 44.67 acres of land within the city for $54,047.75; this same tract was at the time of purchase assessed at $18,135.00, which from the records of upwards of 10,000 sales is normally 60 per cent of its true value, therefore, its probable sale price, under normal conditions, and for purposes other than railroad use, would have been approximately $30,225. Its acquirement by the railway company was approximately $23,822.75 in excess of its true value when considered in the light of the relation which assessed value bears to sale price for the great bulk of property which is transferred from one individual to another, in which the prices paid may be regarded as unaffected by normal conditions or by such terms of necessity, as enable a deviation from the ordinary rules governing the buyer and the seller in real estate transactions. That only certain property is available for railway uses is manifest; it is often fixed by topographical environments or by its particular eligibility for present needs or future requirements. Choice is therefore not optional with the railroad company in the same sense that it is optional with the individual.

The artifices resorted to by railway companies in their efforts to purchase property at normal prices are not enduring, and once it becomes known, the prices advance sometimes with remarkable increases and it was found from more than 200 sales of city property to railway companies, that a wide range existed between the normal value and the sale price of the individual purchases made. As might be anticipated, city property subdivided into small tracts enabled or justified the purchase of entire parcels in place of part thereof, materially modifying the element of damages, which made itself manifest to so marked a degree in the acquirement of right of way in the rural districts of the state, and in the cities as well as the rural districts, no individual purchase of property could be taken as a criterion, but all of the railway purchases made during the past five years were taken into consideration in establishing the average ratio or multiple for each city.

During the period referred to, the railway companies paid for the property acquired by them, over and above its normal value, an

amount sufficient to justify the use of the following multiples: St. Paul, one and three-fourths (1¾); Minneapolis, one and three-fifths (1.35), and Duluth, one and one-fourth (1¼), which when applied to the normal value of the lands as established from contiguous and surrounding property, formed the basis for measuring the cost of reproducing the existing terminals of the railway companies.

In the development of these factors, it was fortunately true that the data available included the cost of the newly acquired terminals of three railway companies; two entering the city of St. Paul and one entering the city of Duluth.

Having obtained the data in respect to the relation between the assessed value and the true value of property in these cities and having also from the records established the ratio between the true value and what the railway companies actually paid over and above true value for property acquired by them, it became a matter of calculation to allot to the existing terminals such values as the application of the general principle warranted.

Under the Minnesota gross earnings tax, which exempts an ad valorem tax on property used for railway purposes, it was found from our inquiries that the tax records on that class of property were not made with such care or posted in such a way as to warrant its use as a basis, particularly as much of the terminal property to be valued had long been owned and utilized for transportation purposes. For this reason it became necessary to measure the cost of reproduction from the average value of contiguous and surrounding property, not including the improvements thereon but applying the multiples to the true value of the naked lands.

It cannot be assumed that in a work of such magnitude, it is possible or practical to go into the ultra refinements of the question of land values which it is believed would not materially alter the results. I desire, however, to point out at this time the desirability and importance of selecting a method for estimating right of way values that removes to a large extent the element of personal opinion. While the process employed in the determination of right of way values in the Minnesota appraisal may not be regarded as perfect, yet it possesses the merit of continuity in the relations of value through the successive steps to the final results.

It may be asserted in substance that the "sales method" does not represent real value. I cannot presume to try to settle a question so replete with human mystery; it is sufficient answer here that if it does not represent real value, then the multiples used for the determination of right of way values must be correspondingly modi-

fied so that in the end the same result for right of way values, as well as for terminal values, ought to obtain.

To elaborate somewhat on the estimates of values made by experts and appraisers of lands based purely upon opinion which long residence, intimate knowledge and familiarity with real estate transactions claim to enable, I know of no better illustration of the confusion which such estimates insure than is set forth in the appraisal of the terminal properties of the Great Northern Railway in the Steenerson Rate Case, which was carried through the Supreme Court of this State some years ago.

Two sets of appraisers made estimates of the value of the terminal lands of the Great Northern Company in St. Paul and Minneapolis. One of the appraisals was made by experts employed by the railroad company and the other was made by experts employed by the State. The same method, that of opinion, was made use of by each of the appraisers, with the result that in St. Paul the estimates of value were 272 per cent apart and in Minneapolis 182 per cent apart. Considering that the value of the terminal lands ran into millions of dollars, it becomes apparent that with no foundation other than that of individual opinion, so widely at variance one with the other, there must necessarily be more or less embarrassment in reaching a conclusion as to which estimate was reflective of values in the sense of substantial truth.

The true value and the right of way value of lands returned in the reports of the railroad companies for the present appraisal of their properties is based largely upon opinion. In the cities of St. Paul, Minneapolis and Duluth, commissioners were selected by the railroad companies to return jointly for the several companies their estimates of the value of the terminal lands. In personnel, these commissioners were composed of men of high standing in the real estate business and substantial citizens in their respective communities, therefore, the defense of the results of my own inquiries which vary widely from the estimates of these gentlemen, is upon the methods employed and not the men.

If the problem in hand contemplated the actual taking over of these properties, there might possibly be no alternative but to adhere to the principle that value depends upon its power to satisfy human want, in which event no economic principle can prevail that is apart from man's estimate of the want satisfying power. We are not, however, confronted by the conditions which such a procedure would impose, but it is sought to determine what it would cost to reproduce these terminal properties in the possession of its present owners as measured by the value of contiguous and surrounding

property, primarily without reference to present use, its indispensability for the purposes of transportation, or to strategy of location which, when pre-supposed, must tend to confuse the judgment as between reproduction cost as land and what its value may be regarded because it is utilized for a particular purpose.

Cost of reproduction and value as a utility, have no necessary or logical relation and the fact that the terminal lands or the properties in part or in whole are not actually to be reproduced, or the fact that it might not be possible at all to reproduce them or their equivalents, probably renders their present possession invaluable not only to the owners but to the communities dependent upon the facilities afforded for industrial activity and commercial supremacy. It is not clear, however, that these elements, which can very conveniently be made the basis for extremely high figures of value, should either merit support or find justification in an estimate purporting to represent reproduction cost.

As a further evidence of the inequalities which spring from individual opinion of the value of lands for railway purposes, comparisons in the reports of the railroad companies in this appraisal do not antagonize the facts referred to in the Steenerson case. The inconsistencies are not infrequent; sometimes the values are not high enough, more often they are too high. One or two examples here will be sufficient to indicate clearly the extremes to which differences exist and serve to show the confusion which would result to anyone called upon to analyze these opinions and reach a conclusion satisfying to the premises upon which it is believed a valuation of railways should be founded.

The station of Fridley, in Anoka county, situated on the Northern Pacific and Great Northern Railroads, about 10 miles north of Minneapolis, is not incorporated, it has no business houses and is distinctly an agricultural district. The right of way of the Northern Pacific and Great Northern Companies adjoin and are parallel; the main tracks are about 16 feet apart and a small shed used jointly as a depot serves the patrons of the roads.

In estimating the cost of reproducing its right of way within the station limits, the Northern Pacific Company made no distinction as between the value of its right of way in the immediate vicinity of Fridley and that situated within several miles north and south of the station, because no local conditions prevailed which justified a right of way value higher than that applicable to occupancy through the agricultural region adjoining.

The Great Northern Company in the preparation of its estimate, entertained a different opinion as to the value attaching to its

right of way at Fridley, and for a class of property which the Northern Pacific Company estimated the cost of reproduction at six hundred dollars ($600) per acre the Great Northern Company estimated at three thousand dollars ($3,000) per acre.

In the cities where the value of terminal property is the work of the special commission appointed by the railroad companies to which reference has been made, I desire to call your attention to the facts and to the value placed on the terminal property of the Chicago-Rock Island & Pacific Railway Company in the city of St. Paul.

In acquiring the necessary property for its entrance into St. Paul in 1901-2, the Burlington, Cedar Rapids & Northern Railway Company, now the Chicago, Rock Island & Pacific Railway Company, purchased a total of 45.55 acres for $137,298.55.

The estimated cost of reproducing this property today as determined from the sales method using the established multiple for St. Paul of one and three-fourths (1¾) is $255,198.97. The commissioners appointed by the railway companies placed a value on this same property amounting to $978,262.69.

It is not deemed necessary or expedient at this time to discuss the testimony of the commissioners who made this valuation which was subsequently given before the Master of the Federal Court in the case of David C. Shepard vs. Northern Pacific Railroad Company et al. It is perhaps sufficient to state here that the amount determined upon, under my direction, as representing reproduction cost, did not, from the character of the testimony offered, seem to require reconsideration with a view to increasing or in any wise modifying the figures arrived at from our own inquiries.

Were it not for the fact that the methods employed under my direction and those made use of by the railway companies in the determination of right of way and terminal values are distinctively different and lead to results widely apart, it would not be necessary to enter upon its discussion in such detail, but having given it much consideration I am not disinclined to set forth and support the principles upon which it is founded, because I believe their application is reflective of truths in a more demonstrable way and with more apparent justification of confidence, than any other which can be devised for the solution of so difficult a problem as that of right of way and terminal values.

It was not to be expected that the results of the work undertaken under my direction would correspond in all respects with the estimates returned by the railway companies, and it is not within my province at this time to discuss the reasons, impugn the motives, or

question the influences, which in some instances disclose remarkable differences as between the estimates of the railway companies themselves and which it is difficult to reconcile by comparison, either from research or from a personal knowledge of the conditions affecting each.

The estimates prepared under my direction and the returns made by the railway companies, in some instances approximate very closely and in other instances disclose very wide variations in the comparative estimates of cost, and by far the largest single factor responsible for this difference relates to the lands for right of way and terminals.

The detail maps of the cities of St. Paul, Minneapolis and Duluth showing the railway terminals and the subdivisions of property used in the estimation of terminal values, together with compiled data relating thereto, also the especially prepared maps of the counties of the state showing the transfers of property adjacent to each line of railway, are made a part of this report as appendices "E," "F," "G" and "H."

EXAMINATION OF PHYSICAL PROPERTIES.

Arrangements having been perfected with the railway companies to provide a special train consisting of an engine and business car, for which service the State paid the actual running cost, in wages of employes, fuel and supplies, the detailed inspection of the physical properties was begun in the early part of May, 1907, and continued almost without interruption until the middle of December, enabling the completion of this feature of the work, excepting the range roads which were examined in the early part of 1908. Accompanied by two assistant engineers, to whom certain details of the work were assigned, and by one or more members of your Commission and also by such general and divisional officers of the companies as would enable the convenient and immediate acquirement of data in respect to the many matters which were to be made the subject of inquiry, the examination was proceeded with in the following manner:

The detailed reports of the railway companies having been compiled on the forms prepared for that purpose, were in such systematic order by subjects as enabled the ready checking of the various items enumerated. The profiles were continually made use of to determine their accuracy as related to the conditions on the ground and notations made thereon, as to any special or unusual characteristics of construction, also as to whether earth, sand, gravel, loose or solid rock cuttings, which would later serve as a guide in the

classification of material in making the computations and estimates of quantities in the office. In addition to this, copious notes were made of all information obtained from the inspection and from the information vouchsafed by the accompanying officers of the railway companies.

The train was moved at a low rate of speed so that observation could be had of the character and standards of construction and maintenance. Stops were made every mile in places, but usually every two miles and sometimes every five miles, to enable measurements of the roadbed and ballast, to observe the brand, weight and age of the rails and fastenings, to ascertain the average number of ties per mile by test measurements and counts, in fact, to make a complete record of all of the physical elements at these given points.

Additional stops were frequently made at bridges and culverts for the purpose of measurement and inspection, and at all stations measurements of buildings were made, the inventories checked and notes made of any important changes.

The equipment reports were checked by the serial numbers of locomotives and cars, so that in the general conduct of the inspection work there was no feature of importance as affecting the estimates that did not come under personal observation, and the memoranda thus obtained was of great importance and assistance in making up the estimates of reproduction cost.

A day's work of 10 hours enabled on an average the inspection of about 100 miles of line not including the time spent at divisional terminals, which according to their extent required from one to three days' time to examine, and the terminals at St. Paul, Minneapolis and Duluth were given many days' consideration at intervals not interfering with the inspection of the lines for which special train service was required. Substantially, all of these large terminals have been gone over on foot and a very thorough and complete knowledge gained in respect to them.

The large maps of St. Paul and Minneapolis, prepared under the direction of your Commission on a scale of 100 feet to the inch, showing the terminals of each of the railway companies, have been extremely useful and helpful in studying the conditions which constitute such an important part in the estimates of value.

OFFICE WORK.

The force employed in the office to compile the various data was under the immediate charge of Mr. D. F. Jurgensen, a civil engineer of experience and skill, whose care and thoroughness in the work is commended to you.

Each subdivision of the work under his charge was placed in the hands of competent engineers, varying in number, according to circumstances and the needs of the work, from eight to twenty-six engineers and assistants.

In this way consideration was given to several subjects simultaneously, such as the estimation of right of way and terminal values, the computation of quantities from the profiles and notes, the determination of the amounts of rail of different weights. Each subject was analyzed in detail and the estimates compiled from the established tables of cost data.

The units of cost, which are vital to the work, are the result of much research. The units of cost used by the railway companies in their reports were compiled in detail and furnished not only very instructive data, but very interesting in the range of prices put upon identical items upon which there should be no very material differences.

For example:

The price of steel rails varied from $20 to $31.50 per ton f. o. b. St. Paul or Duluth

Bridge steel of the same class ranged from 2½c to 4½c per pound.

Locomotives of the same type and weight varied from 6¾c to 12¾c per pound.

Engineering, superintendence and legal expenses, between 1½% and 15%.

Contingencies, between 5% and 50%.

Interest during construction, between 1% and 12%.

It became a difficult, in fact, an impossible task to attempt to reconcile some of these differences, but from the extensive data made available it was possible to reach conclusions and establish units of cost that it is believed are fairly representative. Further reference will presently be made to some of these, also the reasons for their adoption.

Regarding other items entering into the estimates, it was wholly impracticable to use unit constants and in respect to these each property was considered separately. Several important subjects in this class may be mentioned as, the cost of grading, which varies with the character of the work, ranging on different sections of the same line and for different lines, betwen 17 cents and 36 cents per cubic yard for earthwork; solid rock between $1.00 and $1.50 per cubic yard according to its character which in some localities is ordinary lime rock, while in other localities a very hard basaltic rock is encountered; the cost of clearing and grubbing in heavily timbered regions cannot be made the basis for that class of work in the sparsely timbered sections of the state.

From the fact that the State of Minnesota, with a range of more than 400 miles in latitude and about 350 miles in longitude, presents a variety of climate, soil, topographical conditions and products, it is obvious that some of the items entering into the physical properties of its railways are only susceptible of treatment according to individual conditions, and any attempt to unify them as applicable to all of the lines would in no sense reflect the facts, either separately for each railway or collectively for the railroads as a whole.

For these reasons, which were made very apparent from the examination of the properties, efforts were primarily directed to give to each railway, and to different sections of the same railway, such individual consideration to the elements of cost, as geographical position, topographical environments and the diverse conditions incident to construction, appeared to justify.

ADAPTATION AND SOLIDIFICATION OF ROADBED.

Adaptation and solidification of roadbed, was considered separately by but one railway company making an estimate. In most instances, however, the prices employed by the railway companies are regarded as sufficiently high in themselves to give recognition to this element of cost.

In the preparation of estimates of the cost of constructing railroads, engineers may very well differ in the distribution of the expenses. This was manifestly true of the estimates of the cost of reproducing the railroads of Minnesota as submitted by the several railway companies.

It appears to be a well established fact that in constructing a railroad, the engineer is seldom, if ever, permitted to fully complete his work before the actual operation of the line is undertaken. The investment in the project is large and it is important to start an income account just as soon as the construction work has advanced sufficiently to permit it; therefore, upon the opening of a new line for the purposes of transportation it cannot be assumed that with the inauguration of service the property represents a finished product.

The newly made excavations wash and slip, the ditches fill from the action of the elements, the embankments settle and the track superstructure is in almost constant need of attention; resurfacing, lining and dressing of ballasted and unballasted track is necessary, waterways become clogged up, bridges settle or go out of line, station grounds are to be improved and finished, scattered and unused material must be picked up and stored, in fact, all the loose ends which are the immediate sequence of construction must be gathered in and the property brought to an orderly condition.

These items cannot be regarded as contingencies, because they are not unforeseen, but on the contrary they are expected and encountered in the development of every railway and should, therefore, be recognized as a part of the expense attributable to reproducing the equivalent of an established line, possible of accomplishment only in proper order and due course of time.

Adaptation in its application to the problem of reproduction cost is the adjustment of the physical line to its environments and purposes. Solidification of roadbed is its settlement to a stable condition. The terms are closely related to each other yet neither in itself gives adequate expression to, or clearly defines the meaning and scope of the application.

Cost of reproduction, as given interpretation in this appraisal, has been taken to imply that the property to be reproduced must be considered in the light of its perfectness, of its stability and its fitness as a working tool.

If, in preparing such an estimate, fair units of cost are applied to the elements entering into the construction of the line up to the time it becomes available for use, it is apparent that the already established line has, in addition thereto, the expenditures of seasoning, which it is impossible to incorporate in the accounts of any newly constructed railroad. Bearing in mind that equivalent conditions are sought, possible only in the progress of time, it seemed desirable to consider this element of cost separately because it avoids disturbing normal construction costs and provides for the policing of the line until such time as, it may be reasonably regarded, the property is unaffected by the deficiencies attributable to newness.

Based upon personal experience and observation in the care of new and of old lines of railway, and from reliably acquired data, the item of adaptation and solidification of roadbed, as made a part of reproduction cost, has been treated as a labor account covering a period of years, the character of the construction, standard of maintenance and the service conditions determining the distribution of the expense.

CONTINGENCIES

In preparing estimates for the construction of a projected line of railway, it is customary for engineers to add a percentage to the estimated cost to cover unforeseen conditions that develop in the execution of the work.

The preliminary field work and surveys upon which these estimates are based is usually hurriedly made; very little, if any, time is given to considering the character of the material to be

encountered in the grading other than a very rough and necessarily uncertain classification of it, or of the character and extent of the water courses and drainage areas, and except for the very important bridges, little information is at command as to the requirements for foundations, etc., so that with these and other factors representing an indeterminable element of cost, there is every justification for a contingent item both in theory and in practice.

Engineers differ as to the percentage to be added to estimates of cost. In many cases they are governed by their own experiences, but the usual amount added for projected lines is ten (10) per cent of the estimated cost. This amount is sometimes ample and in other instances it has proved not nearly sufficient to cover the contingencies met with in the construction of the line.

The estimates I have prepared of the railroads of Minnesota are not for projected lines of railway, but for the reproduction of existing railways, in which many of the contingencies met with in the original construction and in the development of the properties during the past thirty years, have been made known to me by officers of the respective companies associated with the construction and development of the properties.

From the careful examination made of the lines and from a study of the original construction profiles, I was enabled to observe the truthfulness of the representations made to me of difficulties encountered and expenditures made in constructing and perfecting the lines, and it was possible to include under their proper headings many things which otherwise would have been unknown and consequently disregarded in the estimate of reproduction cost.

The character of the material encountered in the grading is exposed to inspection on all parts of the lines; the extent and character of the water courses and of the drainage areas are known, the bridges, trestles and culverts are established to fit these conditions, and the character, quality and quantity of the construction is known from the records of the company and from the examination and computations made of them.

Considering the detail with which the estimates have been prepared and the inclusion in them of many items of a contingent nature, it does not appear justifiable to consider an estimate of the cost of reproducing a railway, as synonymous with an estimate for constructing a projected line. The essential difference rests in the fact that in reproduction cost the estimate is prepared in the light of known conditions, whereas for a projected line the contingencies are wholly unknown. These facts have been instrumental in reach-

ing a determination that 5 per cent for contingencies is fair under the circumstances attaching to the work of this appraisal.

INTEREST DURING CONSTRUCTION

It is not presumed to discuss the forces and influences, normal or artificial, affecting the financial features of railway construction. Reasonable effort has been put forth to ascertain such facts in respect to interest rates in actual transactions as would enable an application to the inquiry in hand.

It is fully recognized in fact that the floating of securities for the building of railroads covers an almost unlimited range of conditions and, for an hypothetical problem, there is probably no unequivocal proof in support of any one given basis of computation, which fundamentally in its practical workings requires those solid evidences of good faith and sincerity as enable agreement in respect to the terms of exchange.

Such data as appeared to reflect the normal condition of the money market, aided by the concensus of opinion as expressed in the reports of the railway companies, seemed to justify four per cent (4%) per annum as a fair rate of interest to apply to the estimated cost of reproduction.

If, during the period of prosperity prevailing up to the date of this report, a railway property possessed so little intrinsic merit as to be unable to command normal rates of interest, it may very properly raise the question, for the present at least, of its expediency as a utility; however, it must also be considered that in the history of railway construction, the acknowledged pioneer and forerunner of development, expediency from the standpoint of investment has seldom proved the immediate reciprocal of enterprise. This is amply attested by the bones of many fortunes underlying railway construction, the very foundation upon which the properties have subsequently vindicated the wisdom of a foresight and energy so keen and so far in advance of the times that the credit ultimately bestowed or the benefits earned, fell neither to the originators nor to their descendants.

The rate of interest as established is applied to the total estimated cost of reproduction assuming that the necessary funds would be fully employed one-half of the estimated time required to build the respective lines, which, according to their mileage, varied from one to eight years.

ORIGINAL CONSTRUCTION COST

The desire of your commission to give consideration to the original construction cost of the railways of Minnesota and of the

amount of money expended in improvements and betterments led to inquiry concerning the extent to which these records are available.

From the investigations made it was found that the original records of cost pertaining to several of the small and recently constructed lines are available, also the records are fairly complete in respect to some of the branch lines of the large systems, but, for the older and more important railways, representing the greater part of the mileage of the state, the data for some of them is not available at all and for others it is so incomplete as to render its development for practical use an impossibility.

Railway construction which began in Minnesota prior to 1861 was not differently conducted than railway development elsewhere. The incorporation of railway companies was far in excess of the number of projects undertaken and of the many individual enterprises actually started none of importance were completed by the original promoters.

Under the stimulating effect of aid in the form of State bonds and lands, the short, detached and independent lines originally built, many of which were crude in construction and indefinite of purpose, were but the embryos, destined to be assembled into larger and more comprehensive systems of railways. The present systems of roads in Minnesota are but the outcome of a series of constructions, consolidations, purchases, mergers and unions of railways under various corporate names covering a long series of years.

By whatever process the identity of one was lost in another, it is reasonably definite that it has almost invariably been accomplished through the transfer of some part of the securities that bore no fixed relation to the original investment, sometimes more and sometimes less than the money actually expended, depending upon a variety of conditions that cover the whole range of financial transactions, except that cash considerations have seldom if ever been the terms incident to a change in railway ownership.

While no attempt can be made here to depict the opposition, the conflict for mastery, or the constant onset of aggression which has accompanied the strife for commanding position and which has borne down and uplifted through many regimes of ownership and management the smaller beginnings of the railway industry, the reference made may help to disclose some of the reasons why original records were lost or destroyed. In some instances they were never in the possession of the companies but were known only to the contractors, because original construction costs were and now are frequently paid for in the securities of the companies. What the

face value of the securities represented, might not and more often did not bear any direct relation to the actual cash cost of the work.

The economic problems destined to seek enlightenment in an analysis of original construction costs, was not a perception contemporary with the early development of railways, but if the data could be made available it is not impossible to conceive of the difficult and perplexing questions arising under a great variety of accounting methods, in which the charges to betterments and improvements and to operation and maintenance bear no semblance of uniformity, and during which period of time the vitalizing influences of invention have been so revolutionary, as to render some features of railway management largely an administrative experiment.

PRESENT VALUE OF PHYSICAL PROPERTIES

The plan of procedure for this appraisal, as outlined in the letter of instruction and embodied in full elsewhere in this report, contemplated that the railway companies would, in addition to the estimates of the cost of reproduction, prepare data and estimates of the present value of the physical properties involving such modification of the figures of reproduction costs new, as might reasonably be attributed to the action of the elements and to wear and tear by time and use.

With few exceptions this data was omitted in the reports submitted by the railway companies and while no specific reasons were assigned for the omission of it, sufficient data and information is at hand to indicate that unanimity among the railway officials, as to the elements proper to be considered in making up an estimate of the present value of physical properties, did not exist.

It is not unlikely that the divergence of views, which, from the standpoint of the railway companies and as a matter of record, might prove inexpedient in any application ultimately made of the data, was in some instances perhaps more responsible for its lack of inclusion than the alleged impracticability claimed in other instances.

The opinion is entertained by some that there is no depreciation in the physical properties of a railway, but that as a working tool, its efficiency as maintained, is at all times the equivalent of the new and that a specific facility is in some instances worth less than its reproduction cost, only because in the progress of time and development it has become inadequate for the purposes required of it; and again it is expressed that an old road through thorough maintenance and for other numerous and good reasons, is more serviceable and valuable than a new road.

It is entirely tenable that the value of an economically constructed, judiciously financed and efficiently managed railway property, or the contra thereof, is not measured by its cost, and, for the instant, it seems necessary to recur to the elementary that cost and value are not synonymous and that the determination of the present value of the physical properties, using reproduction cost as a basis, bears no relation to value in the sense of utility, or as an investment.

In view of the principles laid down in Michigan and Wisconsin in respect to the determination of the present value of the physical properties of railways, some of which were established conjointly by the authorities of those States and the representatives of the railways, leads to the opinion that were the application of "value as a utility," "value as an investment," or even "cost of reproduction" to be made the basis for taxing railway property in Minnesota, it is not improbable that further evidence would be at command more nearly in harmony with the theories advanced and the methods employed, in the estimation of the present value of the physical properties as prepared and herewith submitted for your consideration.

While it would have been helpful and useful, had the railway companies incorporated the data in their estimates, its omission has led to no embarrassment in the prosecution of the work, as the very thorough examination made of the physical properties of the railways of the State assured the data necessary to reach a determination.

In measuring the present value of the physical properties of railways, it is recognized that in many respects it is difficult to administer by other than arbitrary bases of computation which, in the light of such known facts concerning service conditions, standards of maintenance and the action of the elements, appear to be reasonable and fair.

A brief analysis of the interpretation placed upon present value and the manner in which the work was carried out in this appraisal would be more useful here than to enter upon a discussion of the details of the computations.

It is understood and admitted that lands generally appreciate in value. There are some exceptions to this rule, such as the recession in the value of certain property in growing cities which is sometimes quite marked; the cutting of timber on lands not susceptible of agricultural or other development, or, the working out of an industry which during its period of activity created temporary communities, a condition particularly true of the mining and lumbering industries; these are local, however, and do not measurably affect the upward trend in the value of property when viewed from a more compre-

tensive standpoint, and which a retrospect of the material progress and development of the State discloses.

Recognition has been given in this appraisal to the fact that an old railroad is worth more than a new one. Ballast, while it may show superficial loss of volume by settling into the roadbed, nevertheless, performs at all times the indispensable function of supporting the track superstructure to the full measure of its cost. The elements of cost represented in labor and administration are not subject to change such as the expenditure for grading, clearing and grubbing, track laying and surfacing, engineering, superintendence, legal expenses, etc.

All of the other elements entering into the physical properties depreciate either by the action of the elements or from wear and tear by use. Ties rot rather than wear out; rails wear rather than rust out, and cars both wear and rot. An analysis of the elements which may be regarded as susceptible of depreciation shows, broadly speaking and measured in dollars and cents, about an equal division in the charges attributable to the elements and those due to wear and tear by use.

By reference to the estimates of the cost of reproduction which also show the present value of the physical properties, the items against which depreciation has been charged are made apparent from a comparison of the figures. The details and formulæ upon which the present value of the physical properties have been worked out, are included in the appendices transmitted with this report.

CONCLUSIONS

The tables accompanying this report, are sufficiently in detail to enable much more elaborate comparisons than have been attempted, and which can be worked out according to such needs as may develop. Each operating property has been considered separately and no attempt has been made to show the equities which different companies own in switching properties, or of leaseholds and trackage or running rights; it being desired at this time to simply provide the measure of physical values from which these matters may be determined, according to the proportional ownership among the proprietary companies, and from such terms of leasehold, trackage rights, etc. as the existing contracts may disclose.

In the future it should not again be necessary to make such an expensive investigation as has been primarily needed to prepare this valuation of the physical properties of the railways of Missouri.

At comparatively small annual expense, it can be kept in harmony with the conditions as affected by changes in the physical characteristics, and the prevailing prices of labor and material entering into their construction.

Respectfully submitted.

DWIGHT C. MORGAN,

Engineer.

COMPLAINANT'S EXHIBIT 65. MORGAN.

STATE OF MINNESOTA, }
County of Ramsey. } ss.

I, Albert L. Wagner, assistant City clerk of the City of Saint Paul, do hereby certify that the attached is a true and correct copy and of the whole thereof, of the report of the Tax Committee submitted to the Common Council on February 5th, 1907, in compliance with resolution of said Common Council.

ALBERT L. WAGNER,
Assistant City Clerk.

Witness the seal of the City of Saint Paul, this 5th day of June, 1908.

(SEAL)

To the Common Council of the City of St. Paul:

The resolution under which your committee was appointed requires a report concerning the present condition of real estate assessments in St. Paul and the methods pursued in making the same.

Much information of a general character as to the 1905 assessment of real estate will be found in an article published in the Pioneer Press of November 11th, 1906. The facts and conclusions set forth in that article were based upon 2,654 transfers of St. Paul real estate made by warranty deeds during 1905. Only such transfers were used as seemed, so far as could be judged from the face of the records, to have been made under normal conditions and to represent the fair cash value of the property transferred. The 1905 assessed value of each parcel was set opposite the consideration paid for such parcel as shown by the deed. The article referred to explains at length the ratio process which was originated and has been thoroughly tested by the Wisconsin Tax Commission and is being constantly applied by it to the determination of the aggregate actual value of all taxable real estate situated within a given assessment district or within a given county.

By the use of this process as applied to the 1905 transfers above mentioned, the conclusion was reached that the fair

actual value of all taxable real estate in St. Paul in the year 1905 was approximately 124 millions of dollars. The total assessed value of real estate in 1905 was slightly over 75 millions, the ratio of assessed value to the actual value, for the city as a whole, being 60.20 per cent. Real estate values in the city have advanced since 1905 and are still advancing, so that the actual value of all taxable real estate in the city in 1908 will probably rise to approximately 150 millions of dollars. If real estate assessments be made in 1908 at 60 per cent of actual value, the total realty assessment will then be about 90 millions as against less than 80 millions for 1906. This large increase in the total assessed value of real estate should produce a marked reduction in the tax rate, probably bringing it nearly or quite down to the present rate in Minneapolis which is about 25 mills.

The following table, taken from the newspaper article already mentioned, states for each of the ten assessment districts into which the city is divided, the number of transfers of real estate made by warranty deed during 1905, the aggregate consideration stated in such deeds, the aggregate assessed value in 1905 of the parcels described in such transfers, the ratio of aggregate assessed value to the aggregate consideration or selling value, and the aggregate actual value of all real estate in the district as obtained by dividing such ratio into the total assessed value in 1905 of all real estate within the district.

Assessment District	No. of Transfers	Consideration	Assessed Valuation	Ratio Per Cent	True Value All Property
1	50	$508,509	$334,202	65.72	$12,068,322
2	32	398,200	252,302	63.36	20,132,694
3	61	715,324	441,932	61.77	10,717,557
4	325	796,494	501,473	62.96	23,911,755
5	152	342,644	217,719	63.54	7,834,877
6	197	221,985	145,700	65.63	6,929,354
7	575	555,138	297,043	53.51	10,487,871
8	1,049	1,514,235	852,413	56.29	26,194,370
9	83	41,745	24,660	59.02	1,672,725
10	117	82,280	41,350	50.25	3,877,039
Totals	2,654	$5,176,572	$3,108,794	60.20	$123,826,564

It will be noted that most of the district ratios shown in the above table do not differ materially from the ratio for the city as a whole, only two districts varying by as much as six per cent from the city ratio.

But while there is less inequality of real estate assessment as between districts than has been generally supposed, it is undeniable that the assessment roll for every district bristles with numerous instances of gross inequalities in assessment as disclosed by the fair selling value of the property thus assessed. Many such cases are cited in the newspaper article referred to. It may be stated without fear of successful contradiction that in almost every district or locality within this city the owners of real estate assessed at not over forty per cent of its fair market value can sit on their porches and shy stones against or upon the real estate of less fortunate neighbors whose realty is assessed nearly all or more than all it will bring in the open market.

By far the greater part of these very numerous instances of inequality in realty assessment which exist all over the city have arisen beyond question from the fact that for more than ten years there has been no thorough revision of real estate assessments within the city. Real estate in certain localities is now easily worth double its value in 1896, while in other localities values have advanced very slightly or not at all in the last ten years. This fact alone accounts for many or most of the gross inequalities present in our reality assessment.

Another table contained in the newspaper article before mentioned discloses the following interesting and suggestive facts:—2480 of the transfers made in 1905 aggregated a total consideration of $2,777,885 or only a little more than $1,100 per transfer. The remaining 163 transfers made during 1905 aggregated $2,407,847 or about $15,000 per transfer. Real estate included in the larger group of transfers was assessed at 62% of its selling value; that embraced in the smaller group, at only 52%. The average tax paid per $1,000 of actual value was approximately $19 for the first group and less than $16 for the other.

Still another table in the newspaper article discloses clearly that unimproved real estate is assessed at a materially higher ratio to true value than is improved real estate. In West Saint Paul Proper unimproved real estate was assessed at 84 per cent of true value, improved at only 56 per cent; in Summit Park Addition, unimproved at 63 per cent, improved at 45 per cent; in Winslow's Addition, unimproved at 137 per cent, improved at 53 per cent; in Lyman Dayton's Addition, unimproved at 81 per cent, improved at 54 per cent; in Merriam Park 2nd Addition, unimproved at 47 per cent, improved at 31 per cent; and in Arlington Hills Addition, unimproved at 75 per cent, improved at 48 per cent.

As to improvements the same disparity of treatment as between individual parcels prevails as in the case of ground values. However, a brief and somewhat incomplete investigation concerning the present value of structures on the improved property sold during 1905 in Summit Park Addition and Arlington Hills Addition seems to indicate that, in the residence districts, taken as a whole, improvements are assessed at about 50 per cent of their conservative present value.

It is needless to state further facts showing that the present real estate assessment of the city is permeated through and through with many glaring inequalities and that there should be, as speedily as possible, a complete and thorough revaluation upon some basis which will produce reasonably equitable results. It has evidently been assumed, ever since the painstaking reassessment made in 1896, that it was impossible for the assessor's office, as it is now and has been organized, to thoroughly revise the real estate assessment rolls from time to time in such a manner as to reflect changing values in different localities and to keep all real estate constantly assessed at substantially a uniform ratio to fair mar-

ket value. The correctness of this assumption may be said to be a fairly debatable proposition. It is but fair to the present assessor and his office force to state that they have probably done as much as and perhaps more than any of their predecessors since 1896 in the direction of a proper revision of real estate assessments. But the fact nevertheless remains that probably not less than three-fourths of the real estate descriptions on the as assessment books are still assessed at precisely the figures they were assessed in 1896.

It is believed by the committee that, even without any new legislation, the assessor's office, by the discriminating use of data which can be easily gathered, will be able, in the course of two or three years, to so revise the real estate assessment of the city as to again bring about substantial equity as between different individuals and different localities. The information which will be of aid in bringing about such a result can no doubt be obtained in different ways and from various sources, but there is probably no class of information so copious, so trustworthy, and so readily, cheaply and constantly available as the information furnished by warranty deeds as recorded in the office of the register of deeds. The reliability of such data as a basis for real estate valuation has been made the subject of exhaustive investigation by the Wisconsin Tax Commission and by county supervisors of assessment and by local assessors in all parts of Wisconsin, and the essential accuracy of results based thereon has been amply demonstrated.

The recorded land sales by warranty deeds should be carefully gathered and systematically preserved, preferably in the form of a card index, a separate card being devoted to the sales within a single block. The sales, as gathered, should be carefully scrutinized and, where suspicious, examined into by conference with the parties or the real estate agents to determine the actual cash consideration. All suspicious transfers which are not cleared up by such special investigation and all abnormal transfers should be rejected from consideration. When gathered and sifted as just outlined and when used with ordinary judgment and common sense, land sales constitute a truly scientific basis for the proper discharge of an assessor's duties in the assessment of real estate. With the land sales statistics for the city of St. Paul for the three years 1905, 1906 and 1907 so gathered, so revised and so used, the present assessor can, with a very moderate addition to his

regular office force, ascertain and declare in 1908 the fair market value of practically every block in the city, on the basis of bona fide sales which have taken place in that very block or in surrounding or adjacent blocks.

As to the down-town or business district the information disclosed by the land sales should be supplemented and corrected by aid of the knowledge and judgment of an advisory commission of experts. The assessor should also have on his regular office force some experienced builder, who should devote his time to the determination of the true present values of structures both new and old.

The following table is given as an illustration of the substantial accuracy with which frontage values can be fixed by the aid of land sales and also in further proof of the already proven fact that near neighbors in St. Paul now pay widely different amounts of taxes on equal values of real estate. It should be borne in mind that the frontage values given in this table are worked out upon the sales for the single year 1905, and therefore represent average values as of approximately June 30, 1905, since which time realty values, in the city as a whole, have advanced probably about 10 per cent. It is of course obvious that the land sales for a period of two years or three years should give a more comprehensive and reliable basis for determining frontage values than do the sales for a single year. The lots, the sales of which were made the basis of this table, are located in Summit Park, Anna E. Ramsey, Merriam Park 2nd, Lyman Dayton and Arlington Hills additions. Values for lots located in Merriam Park 2nd Addition are based on a frontage of 50 feet; in the other four additions on a frontage of 40 feet.

Street	Location	Number of feet frontage sold in 1905	Average actual ground value (without improvements) in 1905 per 40 ft. lot	Ratio of Assessed value to actual value per cent	Approximate amount of taxes paid for 1905 per $1,000 of actual ground value
Ashland Ave.	Victoria to Lexington	620	$900	64	$19.20
" "	Lexington to Griggs	930	575	48	14.40
Bates Ave.	5th St. to 6th St.	50	1,500	47	17.10
Booth St.	Arcade to Earl	307	475	73	22.50
Case St.	Edgerton to Arcade	326	675	48	12.80
Conway St.	Arcade to Earl	162	475	71	21.30
Cook St.	Edgerton to Arcade	335	325	71	21.30
Dayton Ave.	Lexington to Griggs	200	600	35	11.40
" "	Fairview to Cleveland	1,320	300	36	10.80
Euclid St.	Marie to Earl St.	662	300	61	18.30
Fairmount Ave	Avon to Victoria	62	1,600	54	16.20
4th St. E.	Arcade to Earl	40	300	65	19.50
Fremont St.	" "	120	550	54	16.20
Goodrich Ave.	Dale to Victoria	425	2,100	48	14.40
" "	Chatsworth to Lexington	370	850	72	21.60
Grand Ave.	Dale to Victoria	877	1,400	60	18.00
Hayes Ave.	Lexington to Hamilton	700	325	66	19.20
Hastings Ave.	Arcade to Earl	121	600	44	13.20
Janes St.	Edgerton to Arcade	300	475	56	16.80
Laurel Ave.	Victoria to Lexington	470	900	64	19.20
" "	Lexington to Griggs	240	325	52	15.60
" "	Fairview to Cleveland	650	250	78	23.40
Lawton St.	Edgerton to Arcade	320	575	44	13.20
Lincoln Ave.	Dale to Victoria	433	2,200	52	15.60
" "	Victoria to Chatsworth	420	1,050	55	16.50
" "	Chatsworth to Lexington	240	525	60	18.00
Magnolia St.	Edgerton to Arcade	120	400	61	18.30
Maple St.	5th to 6th	80	1,050	58	17.40
Margaret St.	Arcade to Earl	154	475	68	20.40
Marshall Ave.	Fairview to Cleveland	190	1,025	33	9.90
Osceola Ave.	Grotto to Victoria	362	1,000	75	22.50
Payne Ave.	Rose to Case	150	1,700	48	14.40
" "	Case to Magnolia	126	1,125	46	13.80
Portland Ave.	Victoria to Lexington	448	1,100	55	16.50
" "	Lexington to Griggs	900	575	49	14.70
Selby Ave.	Lexington to Syndicate	260	500	68	20.40
Sims St.	Edgerton to Arcade	235	875	39	11.70
6th St.	Hoffman to Maple	118	925	103	30.90
6th St.	Arcade to Earl	236	500	63	18.90
Summit Ave.	Dale to Victoria	120	3,000	83	24.90
" "	Victoria to Chatsworth	160	3,250	66	19.80
Chats. to Lex.	on Summit Ave. (ex Bk 39)	279	3,725	50	15.00
Summit Ave.	Oxford to Lex. (Bk. 39)	140	1,000	139	41.70
3rd St.	Hoffman to Maple	200	850	83	24.90
3rd St.	Arcade to Earl	336	625	51	15.30
Victoria St.	Laurel to Grand	78	1,300	47	14.10
Wells St.	Edgerton to Greenbrier	120	925	38	11.40
York St.	Edgerton to Arcade	210	825	39	11.70

While it is true, in the opinion of your committee, that the assessor's office, under existing laws, should be able to gradually bring about substantial equity in real estate assessments within the city, yet it would be unreasonable and unfair to expect from that office, as at present organized, a complete accomplishment of that purpose in probably less than three years. The amount of money now annually at the disposal of the assessor's office is entirely inadequate to permit the employment of the expert and the clerical assistance which is absolutely necessary if a thorough revaluation of St. Paul real estate, upon a scientific and an equitable basis, is to be undertaken at the present time and brought to a successful consummation in the assessment rolls for the year 1908. In order to enable the assessor's office to complete a proper assessment of real estate in 1908, and in order that the assessments of ensuing years may be constantly kept upon a substantially equitable basis, new legislation is required and your committee therefore presents herewith, as a part of this report, the draft of a bill, which, if enacted by the legislature, would, it is believed, remove the leading obstacles which now lie in the way of a prompt and equitable reassessment of St. Paul realty and the future maintenance of such assessment upon a uniform basis of substantial equity to all interests, localities and individuals.

All of which is respectfully submitted.

W. A. HARDENBERGH,

WILLIAM C. READ,

W. C. SMITH,

O. H. O'NEILL,

T. A. POLLEYS,

Committee.

St. Paul, Minn., February 5th, 1907.

COMPLAINANT'S EXHIBIT 66. MORGAN.

July 7, 1908.

Mr. Dwight C. Morgan, Engineer,
Railroad and Warehouse Commission,
State Capitol, St. Paul.

Dear Sir:

The result of our tabulations of sales of Saint Paul realty for years 1902 to 1906, inclusive, is the following summary by wards:

Ward	Number of Sales	Ratio
First	1,217	52.590 per cent
Second	997	58.632 per cent
Third	150	62.592 per cent
Fourth	155	60.240 per cent
Fifth	828	63.618 per cent
Sixth	1,112	59.979 per cent
Seventh	1,635	56.957 per cent
Eighth	1,112	55.851 per cent
Ninth	597	61.886 per cent
Tenth	835	44.419 per cent
Eleventh	1,695	48.543 per cent
Twelfth	824	59.911 per cent
City	10,547	57.432 per cent

Yours very truly,

RUKARD HURD,
Secretary.

COMPLAINANT'S EXHIBIT 67. BAIRD.

GRAIN RATES TO DULUTH

From	Via	Present rate for Wheat coarse grain	Miles	Legislative rates for same Distance	
				Wheat	Coarse Grain
Crookston, Minn.	N. P.	11 cents	390	10.8 cents	9.5 cents
Crookston, Minn.	G. N.	11 "	363	10.5 "	9.3 "
Dugdale, Minn.	N. P.	11 "	278	10.6 "	9.4 "
Dugdale, Minn.	G. N.	11 "	243	10.2 "	8.9 "
Erskine, Minn.	G. N.	11 "	330	9.9 "	8.7 "
Erskine, Minn.	Soo	11 "	354	11.5 "	10.1 "
Cummings, N. D.	G. N.	11 "	314	11.1 "	9.8 "
Nelsville, Minn.	G. N.	11 "	282	10.8 "	9.5 "
Dalkena, Minn.	G. N.	11 "	277	10.6 "	9.4 "
Fertile, Minn.	N. P.	11 "	267	10.5 "	9.3 "
Winger, Minn.	Soo	11 "	345	11.4 "	10. "
Shelby, Minn.	G. N.	11 "	287	10.8 "	9.5 "
Lockhart, Minn.	G. N.	11 "	284	10.8 "	9.5 "
Fleming, Minn.	N. P.	11 "	261	10.5 "	9.3 "
Bejou, Minn.	Soo	11 "	338	11.3 "	9.9 "
Kobe, N. D.	G. N.	11 "	334	11.3 "	9.9 "
Hendrum, Minn.	G. N.	11 "	301	11. "	9.7 "
Ada, Minn.	G. N.	11 "	294	10.9 "	9.6 "
Halberg, Minn.	N. P.	11 "	250	10.2 "	8.9 "
Mahnomen, Minn.	Soo	11 "	329	11.2 "	9.9 "
Gardner, N. D.	G. N.	11 "	329	11.2 "	9.9 "
Perley, Minn.	G. N.	11 "	307	11. "	9.7 "
Borup, Minn.	G. N.	11 "	303	11. "	9.7 "
Syre, Minn.	N. P.	11 "	241	10.2 "	8.9 "
Waukon, Minn.	Soo	11 "	320	11.1 "	9.8 "
Argusville, N. D.	G. N.	11 "	322	11.2 "	9.9 "
Georgetown, Minn.	G. N.	11 "	313	11.1 "	9.8 "
Felton, Minn.	G. N.	11 "	310	11. "	9.7 "
Ulen, Minn.	N. P.	11 "	234	10. "	8.8 "

MAPS
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FOR
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COMPLAINANT'S EXHIBIT 68. MORGAN.

To the Honorable, the Common Council,

Gentlemen:

The attention of your honorable body is invited to the consideration of the present unjust, unequal and ineffective assessment of real estate values for purposes of taxation in St. Paul, and I desire to urge upon you the necessity for immediate legislative action looking to the redistricting of the city and the readjustment of values.

Shifting conditions in a community which is growing at a rate that is gratifying to our civic pride make it incumbent upon me to point out to you some of the defects of the present assessment.

The valuation under which taxes are now levied for general and special purposes imposes upon the general public burdens that are not justly laid,—that is so obvious that it may be dismissed as an accepted fact. Any system of assessment that is inequitable, must be a menace to the progress of the community, but in the face of the present expansive development of St. Paul in population and industrial and commercial activity, the antiquated districting of the city for purposes of valuation will, within a very brief period, put an absolute end to the carrying on of public improvements which are necessary to the further growth of this community.

I have satisfied myself by inquiry that, unless steps are taken at once for a readjustment of real estate values, all public improvements, the expense for which should properly be met by the abutting property must be suspended. This is certainly true as regarding those outlying districts which are now being developed and measurably true of the whole city. We are confronted by a situation which must have deplorable results and put a check to the extension of those improvements imperatively necessary to the health and comfort of the people in a growing community unless it is immediately remedied.

I invite your attention to the provisions of title 2 section 7 of the city charter, which I quote:

"Sec. 7. After a contract for the making of any public improvement for which an assessment is required to be made under the provisions of this charter shall have been awarded and before the same is executed, and becomes operative the board of public works shall determine the district within which property will be specially benefited by said improvement and

shall compute the total valuation of all of the property within said district subject to assessment for such improvement according to the last assessed valuation on such property for purposes of general taxation; and said board shall also compute the cost of making such improvements together with the cost of the proceedings for the collection of the assessment therefor. If the cost shall exceed twenty-five per cent of such total assessed valuation the said board shall then certify the amount of such excess to the common council. The common council shall thereupon be authorized either to make provision for the payment of the amount of such excess out of the general fund of said city or to cancel all proceedings theretofore had or taken relating to the making of such improvement. If the common council shall direct the payment of such excess out of the general fund as aforesaid, then the board of public works shall proceed to assess the balance of the cost of the making of such improvement together with the cost of collecting the assessment therefor as provided by this charter. Every award of a contract for any such improvement shall be deemed to be made subject to the right of the common council to cancel all proceedings in the manner aforesaid. No error on the part of the board of public works or of any officer of said city in computing the assessed valuation of property or the cost of making any such improvement for the purposes aforesaid shall in any way affect the validity of any of the proceedings relating to the making of any such improvement or the levying and collection of the assessment therefor."

Under this provision of the organic law the general fund has been and is being drawn upon for a very considerable proportion of the sums necessary for sewer and grading improvements. This general fund, being wholly inadequate to the demands made upon it was augmented—so far as this special purpose was concerned—by an enactment of the legislature of 1907 which authorizes cities to issue bonds to the extent of $500,000 for the purpose of providing funds for special improvements. But so small a share of the burden of the expense has been borne by the property benefited by the sewer and grading improvements rendered necessary, that the bond issue is anticipated by orders for work already issued or in contemplation. With the exhaustion of this fund all work must cease except in those sections of the city where the valuation of the property is high enough to produce a revenue equal

to the demands made upon the construction of public works in the newer sections where the valuation is very low and based upon its worth during a period of great depreciation in values, and where the twenty-five per cent limit yields but a trifling return, rather than upon work necessary to the maintenance of public undertakings in the more highly valued inside districts, it is apparent that there is no stretching of the facts in the making of the bold statement that we are, under the existing conditions, very close to the end of our resources for special municipal expenditures.

I invite your attention to the operation of the law which limits the amount to be levied against property benefited to twenty-five per cent of the present valuation. I have selected at random a number of improvements undertaken by the city, all of them absolutely necessary to the welfare of the community and all demanded by the property owners whose interests were specially concerned.

The St. Anthony Park sewer system was rendered imperatively necessary by the increase in the population of the suburb. Its cost was under the contract $322,000. It serves a district the value of which has increased enormously since the last valuation was made, but under the twenty-five per cent limit only $172,000 could be obtained by assessing the benefited property to the limit. The balance of $150,000 came out of the general fund. It cannot be disputed that the value of the property affected by this work is greatly in excess of its value for this special assessment, nor is it to be doubted that the property owners in the sewer district would have gladly paid the price of the improvements if it had been necessary to secure the sewer and possible under this law. The system could not be denied the people nor could they be assessed for its cost.

In the grading of Matilda Street the contract price was $2,113. The twenty-five per cent limit applied to the assessed valuation made it possible to assess only $1,032 against the property and take $1,081 out of the general fund.

Lawson street was ordered graded from Western to Mackubin; contract price $4,424; general fund $2,049.

A sewer was ordered on Cretin from Marshall to Rondo at a cost of $2,861. It was found that the total value for assessment purposes of the three blocks was but $3,484. The amount that could be levied against the property was $871, and

the balance of the cost, $1,991 had to be taken out of the general fund.

The Maryland street sewer cost $27,503 and of this sum there comes out of the general fund $21,900.

The sewer, Portland avenue from Aldine to Snelling avenue involves the outlay of $4,248 and of this total the general fund is drawn on for $2,141.

I might go on multiplying, demonstrating the inadequacy of the assessed valuation to carry on any just burden of the expense of necessary improvements, but the cases cited will serve to illustrate the conditions in all of that great territory which, if the present progressive movements of the city are to be sustained should be supplied with the necessary modern municipal improvements.

It is inevitable that these improvements must cease when we come to the end of our present resources in the form of moneys derived for the purposes of the general fund from the bond issue which is so nearly exhausted. The situation admits of no room for controversy; it points to the absolute and imperative necessity for a readjustment of real estate values—a readjustment demanded not only by conditions which can not be dodged but also which is required in justice to the whole tax paying body.

In view of this situation and the conditions pointed out I urge upon your honorable body the immediate enactment of such legislation as will provide for the creation of a commission to readjust real estate values and redistrict the city, and provide means for carrying the work of the commission.

COMPLAINANT'S EXHIBIT 69. STAPLES.

5th Class Commodity In-Rates (in Cents per hundred pounds) in effect before and after the Order of the Railroad and Warehouse Commission, on the line of the Northern Pacific Railway.

To	Old rates from Twin Cities	New rates from Twin Cities	Percentage of Reduction	Old rates from Duluth	New rates from Duluth	Percentage of Reduction
E. Grand Forks	23.5	21.4	8.93	23.5	21.79	7.28
Crookston	23.5	20.22	13.95	23.5	20.62	12.25
Detroit	20.5	16.30	20.49	20.5	17.48	14.73
Taylors Falls	18.5	17.09	7.62	18.5	17.48	5.51
Breckenridge	20.5	18.26	10.93	20.5	18.66	8.98
Moorhead	23.5	18.66	20.60	23.5	19.05	18.94
Brainerd	14.5	12.38	14.62	14.5	10.03	30.83
Sauk Center	13.5	11.60	14.08	16.5	15.52	5.94
St. Cloud	10.5	6.50	38.10	15.5	15.13	2.38
Totals	168.5	142.41	.....	176.5	155.76	.....
Av. Reduction			15.45			11.75

Total Average Reduction combined, 13.577.

COMPLAINANT'S EXHIBIT 70. COOPER. (N. P.)

Comparison of Value of Northern Pacific Railway Company's Right of Way and Terminal Property in Minnesota as reported to the Railroad and Warehouse Commission, as reported by the Engineer of the Railroad and Warehouse Commission, and as testified to by Thomas Cooper in the Minnesota Rate Case.

	As Reported by Company		As Reported by State Engineer		Thomas Cooper's Testimony	Company Report over State Engineer's Report		Thomas Cooper's Testimony over State Engineer's Report
	Market Value	Ry. Purpose Value	Market Value	Ry. Purpose Value	Ry. Purpose Value	Market Value	Ry. Purpose Value	Ry. Purpose Value
Duluth	$3,602,443.43	$4,452,112.27	$3,628,767.91	$4,266,128.40	$5,295,752.25	$26,324.48	$185,983.87	$1,029,623.85
St. Paul	7,645,160.24	9,359,470.08	3,491,043.54	6,109,325.85	9,007,889.34	4,154,056.70	3,250,153.23	3,798,563.49
Minneapolis	4,046,951.17	4,925,132.96	1,344,163.89	2,174,547.98	5,346,699.22	2,702,787.28	2,750,584.98	3,172,151.24
Other cities, towns and villages	1,343,936.30	3,112,815.00	678,737.94	1,874,392.49	3,112,815.00	665,198.36	1,238,422.51	1,238,422.51
Country	598,370.70	1,637,681.10	355,385.99	960,683.75	1,637,681.10	242,984.71	676,997.35	676,997.35
Totals	$17,236,801.84	$23,487,220.41	$9,498,099.27	$15,385,078.47	$25,300,836.91	$7,738,702.57	$8,102,141.94	$9,915,758.44

NOTE: In the preparation of the report to the State, a portion of the property within the corporate limits of Duluth and Minneapolis were included in other sections; the report of the State Engineer includes in the items Duluth and Minneapolis all property within the corporate limits; in order to facilitate comparison, the figures given above include in the items Duluth, St. Paul and Minneapolis all property within the corporate limits of each, which is done by transferring as follows:

From.		To		Market value	Ry. purpose value
Section 2	West Duluth to White Bear	Section 1	Duluth	$13,372.50	$40,117.50
" 3	Fond du Lac Branch	" 1	"	33,477.00	100,431.00
" 13	Minneapolis to White Bear	" 12	Minneapolis	15,210.00	45,630.00
" 14	Northtown Jct. to Staples	" 13	"	4,125.00	8,250.00

List of all Property purchased by the Northern Pacific Railway Company within the Corporate Limits of St. Paul, Minn., from January 1st, 1905 to December 31st, 1905, showing Date of Purchase, from whom purchased, Purchase Price, Assessed Valuation for Year 1905, and Percentage which Assessed Valuation bears to Purchase Price.

Date of Purchase	From Whom Purchased	Description	Purchase Price	Assessed Valuation 1905	Percentage Assessed Valuation bears to Purchase Price
		Property Purchased Direct from Owner by the Northern Pacific Railway Company			
June 30th, 1905	John Wagener, et. al.	Three parts of lots 2 and 13, block 1, Brunson's Add., lying within 200' of center line of easterly track of N. P. Ry.	$1,500.00	$72.00	5.0
Dec. 8th, 1905	John Wagener, et. al.	Part of N. E. ¼ of S. W. ¼ Sec. 32, T. 29, R. 22, lying W. of block 16, Lyman Dayton's Add., S. of 6th St. and E. of E. W. of N. P. Ry. Co., and lots 1, 2, 3, 4, 5, 6, block 16, Lyman Dayton's Add.	40,000.00	1,400.00 2,205.00	14.5
		Lots 5, 7, 12 and 13, block 20, Lyman Dayton's Add.		2,900.00	
Nov. 2nd, 1905	John H. Dunbier	Lots 6, 8, 9, 10, 11, block 20, Lyman Dayton's Add.	10,000.00	2,730.00	23.3
Dec. 12th, 1905	Charles E. Robinson	Lots 2, 3, 4, 14, block 20, Lyman Dayton's Add.	26,000.00	4,200.00	16.4
Dec. 1st, 1905	Mississippi Warehouse Co.	Lot 1, block 20, Brunson, Bracq's, block 20, Lyman Dayton's Add., and triangle S. of 3d St. and between last above and E. line of R. of W.	100,000.00	37,500.00	37.5
Aug. 22nd, 1905	Arthur G. Huckbeath	Lots 1 to 7 incl., part of lot 12 and lots 19, 20 and 22, block 12, Lyman Dayton's Add	20,000.00	3,750.00	18.7
Feb. 23d, 1905	Jacob Schmidt Brewing Co.	Part of block 52 (E. of R. of W.), Lyman Dayton's Add.	10,000.00	200.00	1.9
Jan. 26th, 1905	Henry O'Connor	S. W. part of block 52, Lyman Dayton's Add.	21,000.00	700.00	2.5
April 23rd, 1905	Wm. Cunahan	Block 69, E. of R. of W. (less lots 1, 2, 3, 4), Lyman Dayton's Add.	12,000.00	8,150.00	30.7
Feb. 13th, 1905	Henry O'Connor	Lots 1, 2, 3, 4, block 69, Lyman Dayton's Add.	9,200.00	660.00	7.0
Nov. 8th, 1905	John Wagener	Additional strip of land adjoining E. of W. between N. line of Wagener's Add., and S. line of block 1, Brunson's Add.	4,000.00	180.00	4.5
Oct. 6th, 1905	Provident Life & Trust Co.	Lot 8 in Paul Auwarter's Subd'n, block 61, Lyman Dayton's Add.	2,200.00	1,600.00	72.6
Jan. 23rd, 1905	Charles H. Pratt	Block 9, St. Anthony Park		1,200.00	
		" 10 " "		600.00	
		" 11 " "		700.00	
		" 18 " "		1,000.00	
		" 19 " "	27,005.01	700.00	37.3
		" 20 " "		845.00	
		" 21 " "		600.00	
		" 22 " "		300.00	
Dec. 8th, 1905	Charles H. Pratt	S. 642.52 ft. of N. 642.52 ft. of S. E. ¼ of N. E. ¼, Sec. 28, T. 29, R. 22		7,200.00	
		S. 330 ft. of N. 330 ft. of S. W. ¼ of N. E. ¼, Sec. 28, T. 29, R. 22	20,000.00	2,160.00	49.9
July 6th, 1905	Tri-State Land Co.	Part of Lot 5, J. W. Bass Subd'n of lots 8 and 9, a part of lots 7, 10, 12 and 13, Bass Add. of said lots		720.00	
		All of lot 32 and portions of lots 25, 30, 31, 32, 34, same Add., lying E. of Sec. R. W.		1,715.00	
		Lots 35 to 42, 45, 46, 47 and triangle, same Add.		4,200.00	
		Part of Western St. vacated W. of block 6, Bass Add.	22,225.00	1,000.00	37.7
		Alley vacated in block 6, Bass Add.		600.00	
		Lots 1, 2, 3, 4, part of 5 and all lots 6, 7 and 8, block 6, Bass Add.		9,000.00	
		Part of lot 14, Bass Add. of said lots		1,005.00	
		Part of lots 19 and 20, block 15, Ed. Bass's Trout Brook Add.		200.00	
			$224,110.01	$84,457.22	37.3
		Property Purchased and Title taken in the Name of Various Individuals, the Consideration of the Northern Pacific Railway Company with the Purchases being concealed			
Sept. 20th, 1905	J. R. Talby	Lot 2, block 20, Dawson's Rearrgt., block 20, Lyman Dayton's Add.	$20,000.00	$4,020.00	40.5
Aug. 8th, 1905	John H. Dunbier	Block 20, Lyman Dayton's Addition		1,000.00	
		" 42, " " "	12,000.00	4,000.00	37.5
		" 43, " " "		600.00	
Jan. 24, 1905	Helen F. Amos	Part of tract of land bounded by Commercial St., Acorn St., Ilene St. and N. P. Ry. R. W. (E. W. part)	2,000.00	2,140.00	28.7
Oct. 2nd, 1905	Lucile B. Amos	Part of tract bounded as above (south of above)	10,000.00	2,400.00	32.4
April 27th, 1905	Wm. C. Hixon	Part of tract bounded as above (south of last above)	2,000.00	2,000.00	26.0
May 12th, 1905	Mary E. Snyder	At S. E. corner of last above	2,000.00	720.00	28.0
Sept. 18th, 1905	Grant Walker, Trustee	N. W. part of block 52, Lyman Dayton's Add.	10,000.00	2,000.00	20.0
Oct. 6th, 1905	Ferdinand Friedrich	Lot 3, of block 52, Lyman Dayton's Add.	2,000.00	705.00	28.7
			$70,000.00	$20,035.00	30.1
		SUMMARY			
		Property purchased direct from owner by the Northern Pacific Ry. Co.	$224,110.01	$84,457.22	37.3
		Property purchased and title taken in the name of various individuals, the consideration of the Northern Pacific Ry. Co., with the purchases being concealed	70,000.00	20,035.00	30.1
		Grand total	$294,110.01	$104,492.22	37.3

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SUMMARY—ST. PAUL AND MINNEAPOLIS COMBINED

Assessed value for 1906 of all property purchased direct from the owners, as per detailed statement,	$104,379.23
Add 4/6 and 453/547 respectively to determine true value,	70,860.58
True value,	$175,239.81
Add 75% in St. Paul and 60% in Minneapolis to determine railroad price,	129,265.69
Railroad price,	$304,505.50
Price actually paid by Northern Pacific Ry. Co., as per detailed statement,	386,812.92
Excess actual price over railroad price (27%),	$82,307.42

Assessed value for 1906 of all property purchased in which the connection of the Northern Pacific Ry. Co. with the purchases was kept concealed, as per detailed statement,	$80,120.00
Add 4/6 and 453/547 respectively to determine true value,	62,499.38
True value,	$142,619.38
Price actually paid by Northern Pacific Ry. Co., as per detailed statement,	231,561.10
Excess actual price over true value (62.4%),	$88,941.72

Total price of the property on the Morgan plan,	$447,124.88
Total actual price paid by Northern Pacific Ry. Co.,	618,374.02
Excess actual over Morgan plan (38.3%),	$171,249.14

COMPLAINANT'S EXHIBIT 74. COOPER.

Schedule of all Deeds filed for Record from January 1st, 1909 to February 28th, 1909, with the Register of Deeds of Ramsey County, Minnesota, covering Property within the Corporate Limits of Saint Paul, excepting Quit Claim Deeds, Deeds where Consideration is Nominal, Tax Deeds and Sheriff's Deeds, also showing the Assessed Valuation for 1908 on each Tract.

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Mary A. Broderick to John H. Hargraves, Lot 9, Block 3, Alabama Addition No. 2	$800.00	$310.00	39
Winslow W. Dunn to Albert E. Newman, all of Block 1, Ames Acre Lots	1,600.00	1,020.00	64
Howard E. Johnson and Alberta N., his wife to Jos. Hudalla, Lots 1, 2, 3, 4, 5, 6, 7 and W. ½ of Lot 8, Block 4, Ames Acre Lots	1,000.00	785.00	79
Jonathan D. Bond and Martha C., his wife, to Ake Swanson, Lot 10, Block 12, Arlington Hills Add., to St. Paul, Minn	500.00	270.00	54
Frank O. Holstrom and Charlotte, his wife, to Robt. O. Earl, Lots 11 and 12, Block 29, Arlington Hills Add., to St. Paul	1,000.00	655.00	66
Isaac C. Sturges and Maria Louisa, his wife, to Leon Nadeau, S. ½ of E. ½ of Lot 12, Block 9, Ashton & Sherburnes Add	290.00	490.00	169
Sisse Marie Larson to Jno. Frick, N. ½ of Lot 10, Block 18, Ashton & Sherburne's Add	1,000.00	720.00	72
Dickerman Inv. Co. to St. Anthony Lodge No. 56, Ancient Order of United Workman, Part of Lot 7, 50' by 100', Auditors subd. No. 4 or Lot 10, Block 1, Cromwell Place	800.00	1,400.00	175
Theresa Bertta, widow to Hans G. Erickson, Lot 5, Block 1, Atwater St. Add. to the City of St. Paul	1,850.00	645.00	35
Rush B. Wheeler and Harriet S., his wife, to Otto Hansen, Lot 29, Auditor's Subd. of Block 6, Bidwell's Add	200.00	150.00	75
The Conn. Mutual Life Ins. Co. to Mary L. Johnston, Lot 2, Auditor's Subd. No. 33 to St. Paul	12,250.00	8,800.00	72
Christian Linn and Christine Linn, his wife, to Adolph M. Timm and Clara O. Timm, his wife, Lot 24, Block 2, Auditor's Subd. No. 37 to St. Paul	1,100.00	500.00	45
Mary Frances Dawson to A. W. Ritsinger, Lot 13, Auditor's Subd. No. 40	50.00	130.00	260
Chas. C. Townsend and Girard Trust Co. to Fred. W. Gall, Lot 15, Auditor's Subd. No. 55 to St. Paul, Minn	750.00	770.00	103
Jos. Hogn and Elizabeth, his wife, to Jos. Anton Hogn, Lot 4, Block 9, Auerbach & Hand's Add. to St. Paul, Minn	1,000.00	435.00	44
Olin Swanson and Emma C., his wife, to Henry Prucher, Lot 3, Block 37, Auerbach & Hand's Add. to St. Paul	1,025.00	410.00	40
Kate Lavalle, unmarried, to Rudolph Mueller, Lot 11, Block 41, Auerbach & Hand's Add. to the City of St. Paul	125.00	225.00	180
Wm. F. Priper and Ida C., his wife, to Julius Soler, Lots 1 to 15, both inclusive and Lots 18 to 30, both inclusive, Block 7, G. V. Bacon's Add. to St. Paul	775.00	840.00	108
Anna Jacobson, widow to Nick Bass, Lots 22, 23, 24, 25, Block 5, G. V. Bacon's Add	1,500.00	80.00	5
Jas. O'Brien and Tille, his wife, to Frank C. Nickels and Fred G. Smith, Lot 1, Block 9, Baker's Add. to St. Paul	400.00	90.00	23
	$28,015.00	$18,725.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Mary Johnson and Gust G., her husband, to Ida L. Estabrooks, Lot 22, Block 18, Rahr's Add. to St. Paul	$1,375.00	$70.00	5
Minnie Silbaugh and Ed. M., her husband, to Sam. Silverman, Lot 5, Block 3, Lyman D. Baird's Add.	2,800.00	875.00	31
Lyman D. Baird and Lila M., his wife, to And. Anderson, Lot 6, Block 3, Lyman D. Baird's Add.	375.00	175.00	47
Lyman D. Baird and Lila M., his wife, to Jas. E. Plummer, Lots 7, 8, 9, 10, Block 3, Lyman D. Baird's Add.	2,500.00	1,250.00	50
Jas. E. Plummer, a single man, to J. P. Carson, et al., Lots 7, 8, 9, 10, Block 3, Lyman D. Baird's Add.	5,500.00	1,250.00	23
Jos. E. Groh and Mamie D., his wife, to Chas. W. Groh, Lot 9 and all of Lot 8, except N'ly 30' thereof, Block 44, Banning & Olivier's Add. to West St. Paul	900.00	210.00	23
Almeric H. Paget and Pauline W., his wife, to Nath. Petsl, S. 27' of Lot 2, and N. 6½' of Lot 3, Block 1, Barney, Norton & Kingsley's 1st Add. to St. Paul	162.50	390.00	240
Almeric H. Paget and wife, to Frank Kubitscheck, Lot 4, Block 1, Barney, Norton & Kingsley's 1st Add. to St. Paul	200.00	235.00	118
Almeric H. Paget and wife to Stepan Lang, Lot 3, except N. 6½' thereof, Block 1, Barney, Norton & Kingsley's 1st Add.	162.50	235.00	145
Edmund G. Walston and N. Ingram, his wife, to Emil J. Matak, Lot 23, J. R. Barton's Add. to St. Paul	1,650.00	165.00	10
Frank Sherman and Anna, his wife, to Jos. W. Gross, Lot 11, Block 1, Barton's Add. to the City of St. Paul	350.00	165.00	47
Joella E. Whitney and husband to Adolph T. Rosen, S. E'ly ½ of Lot 4, Block 2, Chas. Bazille's Add. to St. Paul	2,400.00	3,075.00	128
Adolph T. Rosen and wife, to Henry Dudovits, S. E'ly ½ of Lot 4, Block 2, Chas. Bazille's Add.	2,500.00	3,075.00	123
Jno. T. Taylor to Peter Schonarth, S. 100' of Lots 4, 5, 6, Block 7, Basil & Guerin's Add.	18,750.00	10,720.00	57
Peter Schonarth, a single man, to Herman L. Benz, same as above	18,750.00	10,720.00	57
Jno. Lowey and Isaac N. Smith to Ben. F. Yeates, Lot 2, Block 15 and Lots 3 and 4, Block 8, Beaupre & Kelly's Add.	2,600.00	1,480.00	57
And. A. Carlstrom and wife, to Gustav Brobakken, N'ly 44' of Lot 2, Block 15, Beaupre & Kelly's Add.	425.00	330.00	78
And. A. Carlstrom and wife, to Peter Gust Peterson, S'ly 44' of N'ly 88' of Lot 2, Block 15, Beaupre & Kelly's	425.00	330.00	78
And. A. Carlstrom and wife, to Jonathan Wallblom, Lot 2, except N'ly 88' thereof, Block 15, Beaupre & Kelly's	700.00	330.00	47
Jno. C. Indset, bachelor, to And. Dachtera, Lot 13, Block 2, Beifeld's Subd. of Lots 12, 13 and 14, Wilkin & Hayward's out Lots	500.00	260.00	52
North Minnesota Land Co. to Isaac Carlson, N. 12½' of Lot 11, all of Lot 12, Berger's Rearrang't of Block 21, Olivier's Add. to West St. Paul	600.00	380.00	64
	$63,625.00	$35,720.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Fred. Tessman and Louise, his wife, to Ida Krauss, Lot 12, Block 2, Wm. Bickel's Subd. of Lot 2, Smith Lott's out Lots	$650.00	$430.00	66
Swan Bergston and wife, to Dan. Hedberg, Lot 17, Bishop's Subd. of Lot 46, Lake Como Villas	750.00	70.00	9
Frank M. Farwell and wife to Fred'k M. Larkin, Lot 12, Block 2, Boulevard No. 3, St. Paul, Minn	125.00	175.00	140
Emma B. Coventry, single, to Ernest J. Brissman Lot 28, Block E. of Block E. and D., Boulevard Add	400.00	175.00	44
Geo. M. Brayton and wife to Jr. Welsch, Lot 2, Block 1, Brayton's 2nd Add. to St. Paul.	250.00	165.00	66
Eleanor I. Young, unmarried, to Scott MacDonald, that part of Lots 1, 2, 3, Block 1, Bryant's Park Add	200.00	740.00	370
Wm. J. Bennet and wife to Laura Wright, Lot 7, Block 2, Bryant's Park Add. No. 3	600.00	430.00	72
Gregory Bolt and wife to Matt Lettenmaier, Lot 22, Block 1, Bryant's Randolph Street Add	250.00	135.00	54
Thos. B. Griggs and wife to Wm. Fleming, Lots 18, 19, 20, Bushnell's Rearrang't of Block 3, Boulevard Add	490.00	405.00	83
Wm. Fleming, widower, to Isabelle Scott Driscoll, Lots 18, 19 and 20, Bushnell's Rearrang't of Block 3, Boulevard Add	900.00	405.00	45
Butterfield Syndicate to Clara Ida Schultz, Lot 3, Block 5, Butterfield Syndicate Add. No. 1	615.00	360.00	59
The "Butterfield Syndicate" to Wm. A. Gerber Lot 4, Block 5, Butterfield Syndicate Add. No. 1	600.00	360.00	60
Butterfield Syndicate to Nicholas Mertz, Lots 8 and 9, Block 5, Butterfield Syndicate Add. No. 1	1,275.00	780.00	61
Francis M. Dolan and wife to Chas. E. Otis, Lot 7, Block 11, Butterfield Add. No. 1	500.00	430.00	86
Jno. Kane, bachelor, to Myles Fallon, Lot 8, Block 11, Butterfield Syndicate Add. No. 1	2,900.00	430.00	15
Nellie E. Needham, widow, et al. to Chas. W. Moore, Lot 23, Block 11, Butterfield Syndicate Add. No. 1	4,200.00	1,480.00	35
Butterfield Syndicate to Chas. R. Adams, Lot 30, Block 1, Butterfield Syndicate Add. No. 2	600.00	200.00	33
Chas. H. McGill and wife to Dan. H. Monn, Lots 8 and 9, H. L. Carver's Subd. of Lots 1 and 2, Block 53, Rice & Irvine's Add. to St. Paul	12,250.00	7,070.00	58
Maria Thill and George her husband to Fred Ranninger, Lot 10, Chute Bros. Div. No. 5 Add	1,200.00	405.00	34
Mary B. Clark, widow, to Fridolin Hediger, Lot 10, Chute Bros. Div. No. 9 Add	735.00	430.00	59
Chute Bros. Co. to John A. Burket and wife, Lot 11, Chute Bros. Div. No. 13 Add	325.00	210.00	65
Chute Bros Co. to John Gruber, Lot 12, Chute Bros. Div. No. 13 Add	325.00	210.00	65
Chute Bros. Co. to Michael J. Wagner, Lot 27, Chute Bros. Div. No. 14 Add	450.00	255.00	57
	$30,500.00	$15,750.00	

	Considera-tion	Assessed Val.	Percentage Ass'd Val. of Consid'n
Lottie S. Trenholm and husband to City of St. Paul, Lots 6 and 7, Clark's Subd. of Lot 22, Lake Como Villas	$1,175.00	Exempt	
Henry F. Stock and wife to Patrick Foley, et al., Lots 1, 2, 3, 4, 5, Anna W. Clarke's Rearrang't of Block 9, Suburban Hills City of St. Paul	2,100.00	$2,200.00	105
John E. Burchard and wife to Western Land Securities Co., Lot 1, Cochran's Subd. of and Add. to Block 11, Woodland Park Add.	275,000.00	94,650.00	34
Robt. W. De Forest, et al. to Jennie L. Creelman, Lot 2, Cochran's Subd. of and Add. to Block 11, Woodland Park in St. Paul	8,000.00	6,200.00	75
Wm. M. Ranson, widower to Lloyd G. Pendergast, W. 55' of E. 110' of Lot 4, Block 18, College Place, East Div.	3,250.00	825.00	25
Alonso Bradish and wife to the City of St. Paul, Lots 1, 2, 3, 4, 5, 6, 7, 18, Block 3, College Place, Marshall's Division	860.00	875.00	102
Louise M. Fogg and husband to Clyde L. Duff, Lot 12, Block 7, College Place, West Div.	600.00	250.00	38
Annie H. Conroy and husband to John Paquette, Lot 3, Block 2, College Park an Add. to St. Paul	375.00	150.00	40
Wm. H. Hofer and wife to K. E. Morreim, Lot 6, Block 5, College Park Add. to City of St. Paul	3,000.00	955.00	32
Geo. F. Bothe and wife to Calvin A. Fleming, Lot 18, Block 5, College Park Add.	300.00	135.00	45
Hattie R. Ovenshire and husband to Mary A. Dolan, Lots 32 and 33, Block 1, Como Park Add. to the City of St. Paul	200.00	160.00	80
Wm. M. Spehn to John F. McCarthy, Lot 21, Block 2, Como Park 2nd Add. to St. Paul.	1,500.00	740.00	49
John McKasy to Orin Kipp, Lot 3, Cottage Homes Add.	106.00	1,100.00	1038
John Peterson and wife, et al. to Erick S. Stone and Gust A. Johnson, Lots 7 and 8, Block 1, Crowley & Smith's Subd. of Lots 17 and 24, Hoyt's Out Lots to St. Paul	1,000.00	675.00	68
Martha J. Cullen, et al. to Geo. Waldhelm and wife, Lot 6, Cullen Place	240.00	200.00	83
Geo. Waldhelm and wife to John J. Urban, Lot 6, Cullen Place	475.00	200.00	42
Lena Schmidt to Fred'k Wm. Tubbesing, Lots 24 and 25, Daily & Berrisford's Subd. of Block 95, Lyman Dayton's Add. to St. Paul	675.00	650.00	96
Susan Rode to Albert Sager, Lot 30 and N. 2.4' of Lot 31, Daily & Berrisford's Subd. of Block 95, Lyman Dayton's Add. to St. Paul	1,700.00	1,020.00	60
Sylvester Kipp and wife to Wm. K. Jensen, Lot 15, Block 15, Dawson's Add. to St. Paul	275.00	190.00	69
St. Paul Developing Co. to Wm. S. Kine, Lot 27, Block 1, Dawson's 4th Add. to St. Paul	100.00	75.00	75
Leon T. Chamberlain and wife to Kathleen W. Connelly, Lots 3 and 4 and N. ½ of Lot 5, Dawson's Rearrangement of Block 68, Banning & Olivier's Add. to West St. Paul	4,750.00	680.00	14
United States Installment Realty Co. to Wm. C. Schader, Lot 14, Block 1, Dawson & Smith's Add. to St. Paul	1,000.00	485.00	49
	$306,681.00	$112,415.00	

COMPLAINANT'S EXHIBIT 74. COOPER.—*Cont.*

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Maria Herzan to Anna [illegible] Mikesh, Lot 2, Block 2, Dawson & Smith's Subd. of Block 11, Stinson, Brown & Ramsey's Add. to St. Paul	$500.00	$255.00	51
Phoebe A. Deringer and husband to Christina Myhra, Lot 23 and W. 33.18' of Lot 24, Block 18, Lyman Dayton's Add	1,075.00	1,485.00	138
Irene Linehan and husband to Fred Peterson, E'ly 40' of Lot 5, Block 26, Lyman Dayton's Add. to St. Paul	2,500.00	1,710.00	68
Jane M. Jagger to Ole Christenson, Lots 9, 10, 11 and 12, Block 32, Lyman Dayton's Add.	4,500.00	4,150.00	92
Kate A. Herris and husband to Wm. F. Peet, Lot 3, Block 74, Dayton & Irvine's Add	3,500.00	4,550.00	130
Henry A. Willard and O. M. Hall to Louis C. Lorin, Lots 3 and 4, Block 6, Edw. Dean's 2ndi Add. to St. Paul	700.00	860.00	123
Ben. B. Herbert and wife to Eli T. Wilder, Und. ¼ of Lots 3, 4, 5, 6, 7, 8, 9, Block 6, Edwin Dean's 2nd Add	1,225.00	2,580.00	104
Jas. F. Angell to Eli T. Wilder, Und. ½ of Lots 3, 4, 5, 6, 7, 8, 9, Block 6, Edw. Dean's 2nd Add	1,250.00		
Cornelius A. Lane and Dennis E. Lane to Henry J. Maxwell, Lots 5 and 6, Edw. Dean's Subd. of part of Smith & Lott's Out Lots to City of St. Paul, Block 1	1,400.00	820.00	59
Mary A. Chapman and husband to Wilson I. Rogers, Lot 10, Block 4, Edw. Dean's Subd. of part of Smith & Lott's Out Lots to City of St. Paul	5,000.00	1,910.00	38
Wilson I. Rogers to Harry H. Chapman, Lot 10, Block 4, Edw. Dean's Subd. of part of Smith & Lott's Out Lots to City of St. Paul	5,000.00	1,910.00	38
Sebastian Pellegrini and wife to Al. Pellegrini, Lot 1, Block 2, Defranchy's Div	100.00	75.00	75
Niel Buck and wife to Hubbard K. Bishop, Lots 6 and 7, Block 6, Desnoyer Park	150.00	140.00	93
Hubbard K. Bishop to Ole Hansen, Lot 6 and 7, Block 6, Desnoyer Park Add	500.00	140.00	28
Estate of P. H. Kelly to E. E. Merrill, Lot 7, Block 19, Desnoyer Park	600.00	150.00	25
Bridget I. Gleason, and husband to John A. Lagerman, Lot 15, Block 50, Desnoyer Park Add	400.00	135.00	34
John Townsend to Ed. G. Walton agency, Lots 5 and 6, Block 56, Desnoyer Park	250.00	200.00	80
The Ed. G. Walton, Agency to Margeret Mahoney, Lots 5 and 6, Block 56, Desnoyer Park	500.00	200.00	40
The Ed. G. Walton Agency to Ella M. Bissett, Lot 18, Block 56, Desnoyer Park	150.00	100.00	67
The Ed. G. Walton Agency to Harry A. Hageman, Lot 22, Block 56, Desnoyer Park	150.00	100.00	67
Jas. E. Dore and wife to Eleanor Schmitt, Lot 11, Block, 1, Dore's Add. to St. Paul	2,100.00	180.00	9
Wm. Schornstein and wife to Bernhard Kittel, Lots 20 and 21, Drake's Rearrang't of Blocks 2, 8, 9, 10 and Lots 1 to 11, inc., Block 11, all being part of McLean's Reservation to St. Paul, Block 9	500.00	560.00	112
Peter Kantrowich and wife to Frank Warren, the Und. ⅓ int. of N. W'ly 40' of Lots 9 and 10, Block 21, Dunwell & Spencer's Add. to Brooklynd	500.00	633.33	127
	$32,550.00	$22,843.33	

COMPLAINANT'S EXHIBIT 74. COOPER.—*Cont.*

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
J. Norman Storr and wife to Marion F. Montgomery, an Und. ½ int. in Lots 3 and 4, Block 2, P. V. Dwyer's Rearrang't of Block 2, P. V. Dwyer's Add. to St. Paul	$650.00	$260.00	20
Howard H. Ware and wife to Nels Londin, Lots 1 and 2, Block 1, Eastville Heights, an Add. to St. Paul	85.00	200.00	235
Urban Inv. Co. to John Wagner, Lot 29, Block 15, Eastville Heights, an Add. to St. Paul	250.00	200.00	80
Genevieve M. O'Grady to Pete Dittlof, Lot 30, Block 16, Eastville Heights	225.00	225.00	100
Frank O. Osborne and wife to Clinton E. Watson, Block 4, and all of Block 5, except Lot 14, J. F. Eisenmenger's 2nd Add. to St. Paul	3,375.00	3,345.00	99
Clinton E. Watson to Homer H. Hoyt Co., et al., all of Block 4, and all of Block 5, except Lot 14, J. F. Eisenmenger's 2nd Add. to St. Paul	3,375.00	3,345.00	99
Hubbard K. Bishop to Della D. Bickford, Lot 2, Block 4, Elder Add. to the City of St. Paul	350.00	225.00	64
Jos. Frediani and wife to Pacific Ungaretti, E. ½ of Lot 3, Block 1, Elfelt, Bernheimer & Arnold's Add	2,500.00	975.00	39
Chas. Hayden and wife to Sam. Cookman, Lot 3, Block 7, Elmer & Morrison's Rearrang't of part of Macalester Park	675.00	300.00	44
Frank S. Hires and wife to Louis C. Collats, Lot 9, Block 8, Elmer & Morrison's Rearrang't of part of Macalester Park	450.00	250.00	56
Louis Mark and wife to Henry Mark, an Und. ½ int. in a house and Lot described as follows: The S. 40′ of N. 80′ of Lot 9 and 10, Block 1, Ely's Add	1,350.00	575.00	43
Edw. O. Ingalls and wife to P. J. Flynn, Lot 24, Block 1, and Lot 10, Block 2, C. C. Emerson's Add	1,175.00	1,100.00	94
John Cody and Della his wife to J. Gottlieb Haag, Lot 2, Block 2, C. C. Emerson's Add.	600.00	450.00	75
John Cody and Della his wife to Florence M. F. Titus, Lot 5, Block 2, C. C. Emerson's Add. to St. Paul	600.00	450.00	75
Carrol C. Emerson and wife to Arthur W. Partridge, Lot 13, Block 2, C. C. Emerson's Add. to St. Paul	650.00	590.00	91
The Thompson Home for Old Ladies to Mary L. Kinney, Lot 10, Block 1, Excelsior Park Add	400.00	175.00	44
Henry W. Cunningham and Wm. A. Bradford to Herb. T. Gillard, Lot 11, Block 9, Excelsior Park Add	709.00	175.00	25
Aug. Olson and wife to And. Peterson, Lots 6 and 7, Block 7, Fairview Add	800.00	485.00	61
Jacob A. Johnson, a widower, to Anna Schoen, Lot 13, Block 2, Fawcett's Add. to St. Paul	1,800.00	600.00	33
Wm. H. Welch and wife to Jos. Drost, Lot 24, Block 3, Forestdale Add	150.00	235.00	157
Frank X. Drechsler and wife to Elizabeth Drechsler, Lot 2, Block 3, Forepaugh's Div. A of City of St. Paul	500.00	1,650.00	330
Ellen C. Thauwald and husband to Friedrich Michel, Lot 5, Fort St. Out Lots, an Add. to St. Paul	500.00	475.00	95
	$21,169.00	$16,285.00	

COMPLAINANT'S EXHIBIT 74. COOPER.—Cont.

	Considera-tion	Assessed Val.	Percentage Ass'd Val. of Consid'n
Francis P. Webb and wife to Alice Lofstat, Lot 6, Block 1, Franklin Add.	$225.00	$165.00	73
Gertrud Jansen to Margeret Sauter, S. 39½' of N. 79½' of Lots 12, 3, Block 6, A. G. Fuller's Add. to St. Paul.	2,000.00	1,680.00	84
Louise C. Walsh to Ossian E. Dodge, Lots 11, 12, 13, 14, 15, Block 1 and Lots 9, 10, 11, 12, Block 2, Garfiled Park Add.	562.50	360.00	64
Emma L. Wallace and husband to H. LeRoy Brink, Lot 9, Block 1, Gillette's Add. to Woodland Park.	400.00	225.00	56
Graves & Vinton Cotton Co. to Graves & Vinton Co., Lots 8, 27, 28, 29, 30, Block 2 and Lots 7, 8, 9, 10, 11, Block 1, Lots 6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 21, Block 4, Glenwood Park Add. to St. Paul.	3,830.10	900.00	23
Economy Realty Co. to Peter Berger, Lot 2, Block 9, A. Gotsian's Rearrang't of Sigel's Add.	190.00	145.00	76
Economy Realty Co. to Carrie Prohopky, Lot 4, Block 9, A. Gotsian's Rearrang't of Sigel's Add.	190.00	145.00	76
J. F. George and wife to Dan. H. Crego, Lots 10, 14, 15, 16, Block 2, Greve's Subd. "A"	500.00	1,585.00	317
Robt. L. Ware and wife to Mary Martin Anderson, Lot 20, Block 1, Groveland Add.	405.00	195.00	48
Robt. L. Ware and wife to Darius S. Smith, all of Lot 29 and E'ly ½ of Lot 28, Block 2, Groveland Add. to St. Paul.	675.00	292.50	43
Bridget I. Gleason and husband to Jos. G. Bach, Lot 20, Block 4, Groveland's Add.	300.00	90.00	30
Rebecca Lindemann, widow, et al. to Paul Weske, Blocks 1 and 2, Lindemann's Place	10,000.00	4,695.00	47
Merchant P. Buzzell to Thomas W. Quinn, E. ½ of Lots 1 and 2, Block 4, Hamline Syndicate Add. No. 3.	3,100.00	155.00	5
Elizabeth Wilcoxson to Ellen C. Washington, Lots 11, 12, 23 and 24, Block 3, Hager's Subd. of Lots 1, 2, 3, 4, 5, 6, 7, 14, 15, 16, 17, 18, Walcott's Add. to Cottage Homes.	1,460.00	200.00	14
Alice K. Bacon and husband to Edward M. Heimbach, Lot 10, Block 1, Egbert G. Handy's Add. to St. Paul.	375.00	135.00	36
Charles E. Otis to Peter Schonarth, Lot 9, Block 2, Egbert G. Handy's Add. to St. Paul	200.00	135.00	68
Prentiss W. Jackson to J. B. Burkholder, Lot 19, Block 3, Egbert G. Handy's Add.	400.00	135.00	34
Prentiss W. Jackson Jr. to John Dahlin, Lot 20, Block 3, Egbert G. Handy's Add.	425.00	135.00	31
Frank Houska and wife to Thomas Vrana, Lot 5, Block 19, E. H. Hawke's Subd. of Winslow's Add.	250.00	650.00	260
William F. Proper and wife to John F. Kargel, Lots 10, 11, 12, 19, 20, 21, Block 1, Hazel Park Div. No. 6 Add.	350.00	170.00	49
Ferdinand Gaul and wife to William W. McCoy, Lot 17, Block 3, Hersey and Woolsey Add.	1,100.00	565.00	51
Andrew P. McConnell to Robert Pollack, Und. ½ interest in Lot 14, Block 4, Hersey & Woolsey's Add.	150.00	57.50	19
William Zieprecht to A. J. Crane, Lot 14, Block 7, Hersey & Woolsey's Add.	1,600.00	500.00	31
	$28,687.60	$13,315.00	

	Consideration	Assessed Val.	Percentage Assd Val. of Consid'n
George W. Swan to Reginald Schmidt, Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, Block 15, George S. Haven's Rearrang't of Lots 15 and 16, Erwin's Out Lots to St. Paul	$1,050.00	$2,280.00	120
Bridget Barrett to Charles Glueck, Lot 217, Hinkel's 3rd Amendment to Union Park	350.00	385.00	30
Rufus C. Jefferson and wife, et al. to Herman L. Belmont, Lot 3, Heard's Subd. of Lot 19, Hewitt's Out Lots, 1st Div.	275.00	50.00	18
Westcott W. Price and wife to Fortuna Charles Ostrander, E. 30 feet of Lot 29, Block 3, Holcombe's Add. to St. Paul	725.00	1,260.00	130
Westcott W. Price and wife to Frank R. Wheeler, W. 10 feet of Lot 29, Block 3, Holcombe's Add. to St. Paul	333.33		
Katie L. Stonebraker and husband to Lulu Webber White, Lots 7 and 8, Block 5, Holcombe's Add.	6,000.00	3,050.00	51
Northwestern Lumber and Wrecking Company to Ingie Gay, Lot 6, Block 3, Homeroth, an Add. to St. Paul	180.00	35.00	19
H. F. Curtis and wife to Joseph Carr, Lot 15, Block 1, Hopkins 2nd Add.	500.00	210.00	42
F. William Punch to John M. Punch, S'ly 40 feet of Lots 8, 9, 10, Hornsby's Subd. of Block 137, West St. Paul Proper	2,000.00	665.00	33
Lura P. Bell and husband to William Fleming, Lots 21 and 22 and W. ½ of Lot 20, Howard Park, being a Subd. of Lots 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, Shiehl's Enlargement of Roseville Acs.	3,200.00	1,000.00	31
James E. Smith to Bertha G. Ige, Lot 16, Block 2, Homer H. Hoyt Company's Add.	2,000.00	135.00	7
Frank O. Holstrom and wife to William E. Hatteson, Lot 2, Block 3, Homer H. Hoyt Company's Add.	325.00	135.00	41
J. August Nilsson to Rachel B. Superior, S'ly 50 feet of Lot 2, Block 13, Hoyt's Add.	1,600.00	700.00	44
Andrew Holm and wife to Rachel B. Superior, N. 50 feet of S. 100 feet of Lot 2, Block 13, Hoyt's Add.	1,550.00	1,010.00	65
Janette S. Mahon to George S. Wilson, Lots 16, 17, 18, 19, Block 1, Hoyt's Rearrang't of Hoyt's Como Out Lots	300.00	190.00	63
Annie L. Clarke and husband to William F. Pieper, Lot 9, Block 2, Humphrey's Add.	750.00	325.00	43
Joseph Hare and wife to Lucy M. Newmaster, Lot 19, Block 199, Irvine's Add. to West St. Paul	600.00	375.00	63
The Connecticut Mutual Life Insurance Company to Leo J. Bauer, N. ½ of Lot 9, Block 57, Irvine's Enlargement to Rice and Irvine's Add. to St. Paul	3,500.00	1,880.00	55
Leo J. Bauer and wife to Christina Rosenzweig, N. ½ of Lot 9, Block 57, Irvine's Enlargement to Rice and Irvine's Add. to St. Paul	3,500.00		
Henry Pohlin and wife to Ida Larson, Lot 1, Block 2, Jackson & Bidwell's Add. to West St. Paul	1,050.00	450.00	42
Walter H. Sanborn and wife, et al. to Frederick W. Eno, Lot 1 and 2, Blk 1; 3, Jackson and Bidwell's Add. to West St. Paul	400.00	450.00	113
	$30,088.33	$15,465.00	

Comptroller's Exhibit 71. Cotton.—Cont.

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Lawrence Goodrich and wife to James H. Cox, Lots 1, 2, 3, Block 16, Jackson and Rice's Add. to West St. Paul	$250.00	$250.00	100
Axel Liljedahl to Pierre Bohler, Lots 22 and 23, Block 2, Jefferson Park Add. to City of St. Paul	1,000.00	610.00	61
William Wilhelmina Smith to Louis C. Lewis, Lots 12, 13, 14, Block 2, Dixon's Subd. of Lots 3, 4, 5, 6, 7, 8, 9, 10, Gervais Out Lots, an Add. to St. Paul	2,500.00	900.00	36
James I. Goodrich and wife to Urban Investment Company, Lots 6, 7, 24, Johnson's Subd. of the S. ½ of Lot 13, Kenelly's Out Lots	50.00	75.00	150
Robert F. Hallman and wife to Anna Hallman, Lot 2, Block 4, Goodrich's Rearrangement of Blocks 4 and 6, Holcomb's Reservation to St. Paul	650.00	285.00	44
Caroline L. Aird and husband to Norman Report, Lot 23, Block 1, Kidd's Rearrangement of Blocks 5 and 6, Hubbeman's Add. to St. Paul	450.00	450.00	96
William F. Gerdau and wife to Wilhelm H. Bruns, Lot 19, Block 4, Kiefer Park, an Add. to St. Paul	1,000.00	350.00	35
Mark M. Haines and husband to George Happe, Lots 4 and 5, Block 3, Kiefer, Schumacher and Wilt's Subd. of Lots 1, 2, 3, Collin's Out Lots	600.00	300.00	50
Edward M. Van Dusen to Frank I. Whitney, Lot 7, Block 13, Elkton's Add.	5,000.00	2,500.00	50
Margaret Holmes Power to Carl Oscar Gardelin, W. ½ of Lot 1, Block 4, Kidd's Add. to the City of St. Paul	2,250.00	925.00	41
Justine Krzyzewski and husband to Anastasia Pretzak, S. 100 feet of Lot 7, Block 28, in Lafond's Add. to St. Paul	700.00	1,000.00	151
George G. Haggenmiller and wife to Eleanora Haggenmiller, Lots 25 and 26, Block 1, Lake Park Add. 2nd Div., an Add. to the City of St. Paul	2,200.00	700.00	36
Ruth B. Wheeler and wife to Arthur C. Johnson, Lots 29 and 30, Lake Park Add., 2nd Div., (Block 2)	350.00	440.00	126
William Rhodes and wife to Haggenmiller Corwin, Lot 5, Block 6, Langevin's 6th Add. to St. Paul	450.00	240.00	53
George Rheinschmidt and wife, et al. to Martha Werner, W. 34.62 feet of N. 70 feet of Lot 2, Block 6, Leech's Add.	1,400.00	925.00	66
Lillian B. Vose and husband, et al. to James W. Hanley, S'ly 60 feet of Lot 14 and S'ly 60 feet of E. ½ of Lot 13, Block 9, Leech's Add. to St. Paul	1,500.00	4,000.00	213
Hilar Hallman and wife to John R. Sundberg, Lot 30, Block 3, Lewis' Add.	400.00	260.00	65
Nels Ekvall and wife to Jacob A. Johnson, Lot 7, Block 9, Lewis' 2nd Add.	1,450.00	480.00	32
John F. Brandt and wife to Anna Hudson, W'ly ½ of Lot 29, Lewis and Holcomb's Add. to St. Paul	300.00	125.00	42
Marion Hoitt, et al. to Sven August Fransen, Lot 16, Block 4, Lexington Park, Plat 8	250.00	125.00	50
	$22,700.00	$15,930.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Paul Weske and wife to Michael P. Ryan, Blocks 1 and 2, Lindemann Place, St. Paul, Minn.	$11,000.00	$3,130.00	28
Edward O. Ingalls and wife to Henry Gydeson, Lot 10 and S. 15 feet of Lot 9, Block 18, Lincoln's Rearrangement of Blocks 17 and 18, Olivier's Add. to West St. Paul	550.00	300.00	44
Minnie Florence Taylor and husband to Olof August Olson, Lot 9, Block 2, Lockwood's Add. to the City of St. Paul	2,600.00	200.00	8
Dory C. Smutz and wife to Arthur J. Stobbart, Lot 1, Block 10, Lovering Park Add. to St. Paul	6,000.00	1,525.00	25
Martin Kranzusz and wife to Mathias Driscoll and wife, Lot 27, Block 15, Mackubin and Marshall's Add. to St. Paul	1,740.00	950.00	55
Jacob Mayers to George Beals, Lot 4, Block 18, Mackubin and Marshall's Add. to St. Paul	500.00	550.00	110
Clotilde Barbara Piersug to John P. McElver, Lot 15, Block 18, Mackubin and Marshall's Add. to St. Paul	2,500.00	930.00	37
Charles Hoffman and wife to James M. McDonnell, Lot 21, Block 18, Mackubin and Marshall's Add.	2,500.00	1,050.00	42
J. D. Bond and wife to Frances X. Ackermann, Lot 12, Block 20, Mackubin and Marshall's Add. to St. Paul	820.00	550.00	67
Dorothy C. Pagel and husband to Anna Anderson, Lot 21, Block 2, E. M. Mackubin's Add.	400.00	415.00	104
Mary E. Michael and husband to John Bella, Lot 5, Block 7, Marshall's Add. to West St. Paul	2,500.00	1,900.00	76
The Iowa Land Company Limited to Henry Goldberg, Lot 14, Block 11, Marshall's Add. to West St. Paul	2,400.00	1,250.00	52
Mary Cavanaugh, widow, to Mary Cavanaugh, Lot 17, Block 3, Magoffin & Breckenridge's Add., except W'ly 3 feet thereof	2,500.00	1,960.00	78
John L. Barnes and wife to Frank H. Ewing, Lots 11 and 12, Martin's Rearrangement of part of Lots 1, 2, 3, 4, Block 13, Brown and Jackson's Add. to West St. Paul	6,500.00	5,675.00	87
Paulina Bujarski and husband to Mary Panicka, the Und. ¼ of Lot 4, Block 2, Matz Subd. of Lot 11, Wilkin & Heyward's Out Lots	250.00	310.00	62
National Securities Company of Minneapolis to Elvin C. Brainerd, Lot 9, Block 2, Maywood, an Add. to St. Paul	1,500.00	635.00	42
John A. Berkey to Abraham Lazarus, Lot 5, Subd. of Block 1, Medill's Add. to St. Paul	6,500.00	5,780.00	89
James K. Ogden to George B. Hillman, Lot 23, Block 22, Merriam Park, Ramsey County, Minn.	950.00	325.00	34
Caroline W. Clark and husband to William H. Mueller, Lot 4, Block 8, 2nd Add. to Merriam Park	1,500.00	250.00	17
Freeman L. Daggett and wife to Ines B. Haggerty, Lot 13, Block 11, 2nd Add. to Merriam Park	725.00	205.00	28
Christopher W. Chaney and wife to Earl J. Smith, Lot 10, Block 14, 2nd Add. to Merriam Park	575.00	175.00	30
	$54,510.00	$28,065.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Albert H. McCoy and wife to Addison Belcher, Lot 13, Block 17, 2nd Add. to Merriam Park	$650.00	$175.00	27
Emma E. Miller and husband to Ethel M. Peters, Lot 15, Block 17, 2nd Add. to Merriam Park	800.00	375.00	47
Philip C. Justus and wife to Merton E. Coan, Lot 1, Block 2, Merriam Park, 3rd Add	625.00	225.00	36
Frankie K. Schurmeier to Robert R. Moore, Lots 10, 11, 12, 13, 14, Block 3, Merriam Park, 3rd Add	1,600.00	750.00	47
H. A. Muckle Manufacturing Company to Duston Manufacturing Co., Lots 1 and 2 and Lots 21 to 29, both inclusive, Block 1, Merriam Park, 4th Add	35,000.00	11,750.00	34
Douglas D. Smith to Jennie P. Smith, W. 31 feet of E. 38 feet of Lot 4, Block 27, Merriam's Rearrangement of Blocks 24, 25, 26, 27, 28, 29, Merriam Park	377.00	1,205.00	320
John Dicker, et al. to Stewart A. Smith, et al., W. 31 feet of E. 38 feet of Lot 4, Block 27, Merriam's Rearrangement of Blocks 24, 25, 26, 27, 28, 29, Merriam Park	1,925.00	1,205.00	63
Duncan Smith and wife to Jennie A. Smith, W'ly 31 feet of E'ly 38 feet of Lot 4, Block 27, Merriam's Rearrangement of Blocks 24, 25, 26, 27, 28, 29, Merriam Park	500.00	1,205.00	241
Frederick E. Rice and wife to Mathias G. Evenson, Lot 6, Block 27, Merriam's Rearrangement of Blocks 24, 25, 26, 27, 28, 29, Merriam Park	750.00	360.00	48
Harry A. Jones and wife to Edward T. Slayton, Lots 26 and 27, Block 12, Michel and Robertson's Add	500.00	450.00	90
Eliza A. Moore to Nellie Banks, Lot 3, Block 13, Michel & Robertson's Add	75.00	135.00	180
A. M. Sandberg and wife to Anna S. Ecklund, Lot 15, Block 2, Midway Plaisance Add	2,150.00	150.00	7
R. C. Jefferson and wife to Thomas W. Quinn, Lots 1, 2, 3, 4, 5, 6, 7, 8, Block 2, Milham Park Add	2,200.00	1,095.00	50
Josephine B. Fairbanks to Genevieve M. O'Grady, Lot 30, Milton's Add., Block 5, to City of St. Paul	325.00	330.00	102
John J. Debson and wife to William P. Johnston, Lots 2 and 3, Minnehaha Street Subd.	300.00	400.00	133
Charles C. Hayes to Anne Horrigan, Lots 1, 2, 5, Block 2, Morton's Subd. of Lots 4, 5, 6, 7, J. M. Warner's Acre Lots	575.00	390.00	68
Louis H. Price and wife to William S. Lough, W'ly 16½ feet of Lot 14 and all of Lot 13, Block 5, Nelson's Add	500.00	525.00	105
Louis Michaud and husband to Emilie Iffert, Lot 15, Block 7, Nininger and Donnelly's Add. to Holcombe's Add	950.00	1,100.00	116
Hugh W. Bowe and wife to Arthur E. Lehmann, Lot 4, Block 9, Nininger and Donnelly's Add. to Holcombe's Add	750.00	1,100.00	147
Arthur E. Lehmann and wife to Martha H. Bowe, Lot 4, Block 9, Nininger and Donnelly's Add. to Holcombe's Add	750.00	1,100.00	147
Albert H. Bunde and wife to William F. Pieper, Lot 20, Block 14, 2nd Add. to North St. Paul	700.00	335.00	48
	$52,002.00	$24,360.00	

	Consideration	Assessed Val.	Percentage Assd. Val. of Consid.
Ellen O'Connell and husband to The Edmund G. Walton Agency, Lot 10, Block 1, (except W'ly 10 feet reserved for alley) of the Northern Pacific Add. to St. Paul	$120.00	$45.00	38
Henry H. Blinn and wife to Myra M. Blinn, Lot 7, Block 22, Oakville Park Add.	500.00	910.00	182
Helen G. Cotton to Alice I. Perry, Lot 3, Block 1, Palace Add.	1,275.00	900.00	71
Horace R. Gates and wife to Mayer Bersovits, S. ½ of N. ½ of Lot 1, Block 4, Paterson's Add.	1,500.00	1,260.00	84
Susie Schoemaker, et al. to Martin S. Ofelt, Lot 8, Block 2, Phillip's Add.	550.00	495.00	90
The Connecticut Mutual Life Insurance Company to John C. Horrigan, Lot 1 and E. 10 feet of Lot 2, Block 2, Portland Add.	4,000.00	1,780.00	45
Edward Yanish to Irene Pottgieser, Lots 10, 13 and 14, Block 2, Pottgieser's Subd. of Lots 5 to 16, both inclusive, Weide and Dawson's Garden Lots	300.00	375.00	125
Yost Heinbuch to Patrick H. Manifold, Lot 2, Block 6 of Subd. of Blocks 6, 7, 8, 9, 10, 11, 12, 13, 14, Prospect Plateau	700.00	630.00	90
Louis Becker and wife to Charles F. Melkenbur, Lot 7, Block 7, Prospect Plateau	2,100.00	750.00	35
Ernestine Morgan and husband to Jessie F. Mullen, Lot 6, Block 4, Quinby Park Add.	3,800.00	1,450.00	38
James P. Adamson and wife to James F. Adamson, E. 34 feet of Lot 10, Block 11, Quinby Park Add.	480.00	188.80	41
Absalom H. Roake and wife to Bessie M. Jackson, Lot 6, Block 9, Anna H. Ramsey's Add.	450.00	270.00	60
Hannah Wilkins to H. G. Gasbel, Lot 23, Block 11, Anna E. Ramsey's Add.	400.00	225.00	56
John A. Lagerman to Frederick E. Nelson, Lot 20, Block 12, Anna E. Ramsey's Add.	165.00	225.00	136
Frederick E. Nelson and wife to Oscar H. Rundquist, Lot 20, Block 12, Anna E. Ramsey's Add.	200.00	225.00	112
Osca Rena Brodin to Elspie M. Thomas, Lot 5, Block 15, Anna E. Ramsey's Add.	300.00	225.00	75
Elspie M. Thomas to Eleanor K. Beach, Lot 5, Block 15, Anna E. Ramsey's Add.	400.00	225.00	56
Henry D. Lang and wife to Eleanor K. Beach, Lot 5, Block 15, Anna E. Ramsey's Add.	302.00	225.00	75
William R. Page and wife to Joseph Valentine Rothschild, Lot 23, Block 16, Anna E. Ramsey's Add.	625.00	270.00	43
Joseph Valentine Rothschild and wife to Thomas D. Lane, Lot 23, Block 16, Anna E. Ramsey's Add.	650.00	270.00	42
Gustav Carlson and wife, et al. to Mary C. Berg, Lot 9, Block 17, Anna E. Ramsey's Add.	4,550.00	1,970.00	43
Thomas D. Lane and wife to Henry Rothschild, Lot 11, Block 17, Anna E. Ramsey's Add. to St. Paul	325.00	270.00	83
Frank M. Byrnes and wife to John Johnson and Alma Paulson, Lot 9, Block 19, Anna E. Ramsey's Add.	750.00	270.00	36
Alfred M. Bergstrom and wife to Benjamin F. Buckley, Lot 16, Block 20, Anna E. Ramsey's Add.	675.00	270.00	40
	$25,097.00	$13,713.80	

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	Considera-tion	Assessed Val.	Percentage Ass'd Val. of Consid'n
Katherine L. Hunter and husband to Frank E. Ford, Lot 10, Block 1, Rosedale Park	$875.00	$600.00	69
Frank L. Salter to Henry E. L. Habighorst, Lots 3, 4, 6, 7, Block 7, Rosedale Park Add.	3,500.00	3,900.00	111
Charles Seignemartin and wife to William Volkmeier, Lot 10, Rudolph's Rearrangement of Block 13, Nelson, Stevens and King's Add. to West St. Paul	1,300.00	495.00	38
William Volkmeier and wife to Edward Volkmeier, Lot 10, Rudolph's Rearrangement of Block 13, Nelson, Stevens and King's Add. to St Paul	1,000.00	495.00	50
James Bolt to Louis A. Bumgarder, Lot 8, Block 74, St. Anthony Park	350.00	100.00	29
Laura A. Ballard, et al. to State of Minnesota, an Und. ½ of Lots 7 and 8, Block 50, St. Anthony Park, North	350.00	380.00	54
Edward P. Stevens and wife to Harry F. Weis, Lot 9, Block 50, St. Anthony Park, North	250.00	190.00	76
Charles H. Stevens and wife to Harry F. Weis, Lots 10 and 11, Block 50, St. Anthony Park, North	500.00	310.00	62
John F. Fitzpatrick and wife to the State of Minnesota, Lot 12, Block 50, St. Anthony Park, North	165.00	170.00	103
Lilburn T. Myers and Edmund T. D. Myers Jr., et al. to Harry F. Weis, Lots 16 and 17, Block 50, St. Anthony Park, North	550.00	180.00	33
Friedrich Michel and wife to Michel Harder, Lot 18, Block 1, St. Bernard's Villas	300.00	155.00	52
Leonard H. Wells to Daniel W. Cameron, W. ½ of Lot 4, Block 9, except S'ly 50 feet thereof, St. Paul Proper	25,000.00	8,890.00	36
Edward W. Cummings and wife to National Dwelling and Apartment House Company, W'ly ½ of Lot 14, Block 25, St. Paul Proper	15,000.00	8,500.00	57
Willis G. Stoughton and wife to John D. Vail, Lots 29 and 30 Block 7, Sanborn's Midway Add	1,500.00	450.00	30
Melvin P. Frank to Stanley A. Cassidy, Lots 1, 2 and 3, Block 2, Sargent's Add. to St. Paul	100.00	445.00	445
Stanley A. Cassidy and wife to Charles N. Trest, Lots 1, 2, 3, Block 2, Sargent's Add.	200.00	445.00	223
H. Lohrbauer Land Co. to the City of St. Paul, E'ly 40' of W'ly 47' of Lot 3, Hagerman's Subd. of Lot 41, Lake Como Villas	150.00	35.00	23
Chas. N. Trest and wife to Harry A. Jones, Lots 1, 2, 3, Block 2, Sargent's Add	100.00	445.00	445
Fred'k. Schwertfeyer and wife to Frank J. Cassidy, Lots 15, 16, 17, Block 4, Sargent's Add. to St. Paul	100.00	415.00	415
J. Norman Storr and wife to Al. Dieselin, Lots 10 and 11, Block 6, and Lot 11, Block 7, Schroeder's Add	1,500.00	405.00	27
John L. Barnes and wife to And. Moynihan and wife, Lots 1 and 2, Simpson's Add	18,000.00	9,770.00	54
David E. Fleischner and wife to Eva Metzger, Lot 4, Block 5, Skidmore & Cassedy's Park Add	1,660.00	795.00	48
Frank Lambrecht and wife to Sanford L. Wood, Lot 8, Block 6, Skidmore & Cassedy's Park Add	3,100.00	195.00	6
	$75,550.00	$37,765.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
R. A. Gray and wife to Fred'k E. Messing, Lot 19, Block 1, Slater's Add.	$350.00	$270.00	77
Citizens Saving Bank to Herman Terlinde, N. 85' of Lot 60 and No. 85' of E. ½ of Lot 59, Block 6, Smith's Subd. of Blocks 2, 6, 7, 8, Stinson's Div.	1,400.00	835.00	60
Art. W. King to Geo. Holish, Lot 9, Block 4, Robt. A. Smith's Rearrangement of Lots 1, 2, 3, 4, 5, 6, 7, Wilkin & Hayward's Out Lots	175.00	200.00	114
Arthur W. King to Peter Rybak, et al., Lot 10, Block 4, Robt. A. Smith's Rearrang't of Lots 1, 2, 3, 4, 5, 6, 7, Wilkin & Hayward's Out Lots to St. Paul	250.00	255.00	102
Arthur W. King to Frank J. Skudlarski, Lot 11, Block 4, Robt. A. Smith's Rearrang't of Lots 1, 2, 3, 4, 5, 6, 7, Wilkin & Hayward's Out Lots	175.00	160.00	92
Anna Edner to Blanche E. Fallon, S. 31' of N'ly 61' of Lots 15 and 14, Block 6, Smith's Subd. of Stinson's Div. of N. W. ¼ of Sec. 36, T. 29, R. 23	2,000.00	889.35	44
Martha D. Jones and husband to Herman Wulff, Lot 13, Snow & Miller's Subd. of Block 99, Lyman Dayton's Add.	375.00	325.00	87
Henry R. Caldwell to Hannah A. Manteuffel, Lot 10, Block 13, Stinson's Add. to St. Paul	750.00	595.00	79
Michael P. Sullivan and wife to Mrs. Anna Magne, Lot 17, and S. ½ of Lot 16, Block 15, Stinson's Add.	2,850.00	1,655.00	58
Oscar L. Taylor and wife to Margaret Leonard and husband, Lot 17, except W'ly 10' thereof, Block 3, Stinson's Boulevard Add.	2,400.00	120.00	5
Frank W. Lapham and wife to Reuben J. Anderson, Lot 20, Block 5, Stinson's Boulevard Add.	300.00	175.00	58
Knox Bacon and wife to Lillian B. Clipper, Lot 2, Block 8, Stinson's Boulevard Add.	100.00	175.00	175
Julia R. Bell to Geo. A. Marnada, et al., Lot 11, Block 29, Subd. of Blocks 28 and 29, Stinson, Brown & Ramsey's Add.	175.00	285.00	163
Fred'k. N. Finney to Frank A. Gaugh, Lot 17, Block 8, Stinson's Rice St. Add.	250.00	160.00	64
Jacob B. Jerstad and wife to Alf. K. Langeland, Lot 9, Block 3, Stone & Morton's Add.	1,800.00	740.00	41
Realty Inv. Co. to Leon T. Chamberlain, Lots 1, 2, 3, 4, 5, 6, 7, Block 4 and Lots 8, 9, 10, 11, 12, 13, 14, Block 3, Stone & Roger's Add.	7,000.00	5,580.00	80
John E. Sundberg and wife to Jens B. Jensen, E'ly 20' of Lot 9 and W'ly 30' of Lot 10, Block 4, Stone & Roger's Add.	1,250.00	690.00	55
Mary V. Geraghty and husband to Benj. K. Edwards, Lot 7, Block 2, J. C. Stout's Add. to Summit Park	6,000.00	2,700.00	45
Henry F. Stock and wife to Henry Brener, part of Lot 2, Block 1, Suburban Hills	1,200.00	3,440.00	287
Douglas A. Fiske, et al. to Tho. Schweitzer, Block 3, Suburban Hills Add.	4,250.00	6,640.00	156
Marcellus L. Countryman to Elise Von Minden, Lots 6 and 7, Block 8, Suburban Hills	4,000.00	1,255.00	31
Marcellus L. Countryman to Elise Von Minden, Lot 9, Block 8, Suburban Hills	4,000.00	810.00	23
	$41,050.00	$27,954.35	

	Considera-tion	Assessed Val.	Percentage Ass'd Val. of Consid'n
Harry Jay Work and wife to John M. Blattner the Und. ½ int. in S'ly ½ of Lot 11, Block 13, Suburban Hills Add.	$1,500.00	$455.00	30
Cora E. Burmingham and husband to Clarence B. Rust, E'ly 55' of N. 125' of Lot 4, Block 28, Suburban Hills	2,000.00	875.00	44
Wm. H. Egan and wife to Bertha E. Nippert, W. ½ of Lot 6 and all of Lot 7, Block 4, Summit Park Add.	2,608.00	1,950.00	75
Charlotte M. Stewart to Phineas M. Cardoza, et al., Lot 6, Block 19, Summit Park Add.	3,200.00	1,920.00	60
Nathan A. Tyler and wife to Wm. A. Van Slyke, Lot 22, Block 20, Summit Park Add.	338.00	720.00	210
Thos. Spence and wife to Eleanor E. Needham, Lot 12, Block 25, Summit Park Add.	1,200.00	550.00	46
Gustaf D. Nelson, Lot 5, Block 41, Summit Park, to Sam. H. Dyer	1,000.00	550.00	55
Henry Seymour to Emma M. Glaetzner, Lot 7, Block 41, Summit Park Add.	875.00	550.00	63
Chas. H. Atkins and wife to Augusta Simmons, Lot 8, Block 41, Summit Park Add.	880.00	550.00	63
John T. P. Power and wife to Fred W. Hunt, all of Block 1, Sunnyside Add.	1,600.00	1,195.00	75
Alice J. Cloonen, et al. to P. J. Battis, the Und. 7/9 of Lot 30, Block 6, Sylvan Park Add.	58.33	85.00	113
Alice J. Cloonen to P. J. Battis, the Und. 2/9 of Lot 20, Block 6, Sylvan Park Add.	16.67		
Chas. Paul Dawson and wife to Frank Culver, Lots 29 and 30, Sylvan Park Add., Block 7.	200.00	145.00	73
Dan. Boyliss and wife to W. J. Jarvis, Lot 1, Block 11, Sylvan Park Add.	100.00	80.00	80
M. C. Weyer to Christine Schlater, Lot 12, Block 13, Sylvan Park Add.	100.00	115.00	115
Christine Schlater and husband to Melvin B. Henderson, Lot 12, Block 13, Sylvan Park Add.	225.00	115.00	51
Marguerite Petschl and husband to Martin Krammer, Lot 5, Block 1, Syndicate Add., No. Add.	2,000.00	295.00	15
Mary R. Thon and husband to Arthur W. Kemper, Lot 18, Block 1, Syndicate No. 3 Add.	675.00	245.00	36
Herbert P. Keller and wife to Earnest Plaat, Lot 7, Block 3, Syndicate Add. No. 4.	200.00	205.00	103
S. Elizabeth Wright to A. Schak, Jr., S. ½ of Lots 14 and 15, Block 2, Syndicate No. 5 Add.	300.00	103.33	34
Deane Edwards to Homer H. Hoyt Co., Lot 8, Block 10, Syndicate No. 5 Add.	100.00	135.00	135
Homer H. Hoyt Co. to Gay A. Torley, et al., Lot 8, Block 10, Syndicate No. 5 Add.	100.00	135.00	135
Harry A. Jones and wife to the U. S. Installment Realty Co., Lot 21, Block 14, Syndicate No. 5.	309.15	335.00	108
Wm. A. Buettell and wife, et al. to Nora M. Gavin, Lot 9, Block 19, Syndicate No. 5 Add.	237.00	135.00	57
Wm. A. Buettell and wife, et al. to Katherine C. O'Donnell, Lot 10, Block 19, Syndicate No. 5 Add.	257.50	135.00	52
John C. Thaung and wife to Henry Lloyd, Lot 11, Block 19, Syndicate No. 5 Add.	325.00	135.00	42
	$20,404.65	$11,713.33	

	Considera-tion	Assessed Val.	Percentage Ass'd Val. of Consid'n
Anna C. Warren and husband to Edward Wolf, Lot 24, Block 20, Syndicate No. 5 Add.	$350.00	$135.00	39
Jas. E. Smith to Fred'k Michel, Lots 16, 17, 20, Block 22, Syndicate No. 5 Add.	4,500.00	445.00	10
Moses C. Tuttle and wife to Helen T. Burke, Lots 19 and 20, Block 30, Syndicate No. 5 Add.	1,100.00	450.00	41
Wm. A. Bartlett and wife to Chas. J. Richter, E. ½ of Lot 2, Block 21, Terry's Add. to St. Paul	2,000.00	655.00	33
Carrie K. Jones and husband to Wm. W. Holcomb, W. 30' of Lot 4 and E. 10' of Lot 5, Thurston's Subd. of Lot 7, Block 3, Terrace Park Add.	5,750.00	3,300.00	57
Nathan Goffstein, et al. to Louis Goffstein, Lot 13, Block 1, Tinker's Add.	7,000.00	850.00	12
Wm. F. Pieper and wife to Otto Hall, Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Block 3, Ufton Grove Plat No. 3	400.00	450.00	113
Orlando A. Robertson and wife to Geo. D. Eygabrod, Lots 93, 94 and 95, Union Park, an Add	27,000.00	16,810.00	62
Henry L. Power to Hubbard K. Bishop, Lot 5, Block 3, University Ave. Add.	400.00	270.00	68
Hubbard K. Bishop to Albert D. Boldt, Lot 5, Block 3, University Ave. Add.	375.00	270.00	72
St. Paul Title & Trust Co. to Leonardo Vannelli, Lot 53, Upper Levee Add.	185.00	210.00	114
Rachel B. Superior to Enoch F. Berrisford, Lot 1 and E'ly 15' of Lot 2, Block 1, Vanderburgh's Add. to Hoyt's Add.	3,000.00	3,340.00	111
Nils M. Borgstrom, et al. to Jas. E. O'Connor, et al., Lot 10, Block 3, Van Slyke's Rearrang't of Humbird's Add.	1,800.00	610.00	34
Chas. H. Atkins and wife to Jessie T. Cobb, W'ly 70' of Lot 17 and W'ly 30' of Lot 19 and all of Lot 20, Varney & McManigal's Rearrang't of Block 1, Anna E. Ramsey's Add.	2,900.00	570.00	20
Margeret Schonarth to Jessie T. Cobb, Lot 21, Varney & McManigal's Rearrang't of Block 1, Annie E. Ramsey's Add.	600.00	270.00	45
Wm. H. Marshall and wife to Dwight A. Potter, Lots 8, 9, 10, Block 2, Victoria St. Add.	1,075.00	430.00	40
Geo. H. Vernon and wife to Archibald H. Vernon, Lots 1, 2, 3, 5, Block 1, Lots 1, 2, 3, Block 3 and Lots 8, 13, 14, 15, Block 4, Vernon's Rearrang't of E. ½ of Block 4 and Lots 4, 5, 6, 7, 8, 9, 10, 11, 12, Block 3 and W. ½ of Block 6 and E. ½ of Block 5, Sylvan Park Add.	500.00	870.00	174
Jas. J. Rockford and wife to Augusta Doyle, Lot 8, Block 2, Vernon Add. to City of St. Paul	3,750.00	335.00	9
Harriet B. Wakefield to Edw. A. Oberg, Lots 14 and 15, Wakefield Place, Subd. of Block 73, Lyman Dayton's Add.	900.00	430.00	48
Robt. S. Adams to Fred'k. Wm. Tubbesing, Lot 11, Walther & Schnittger's Subd. of Block 90, Lymann Dayton's Add	325.00	325.00	100
Winnie L. Taylor to Pioneer Press Co., Lot 28, Block 6, Warrendale, an Add. to City of St. Paul	4,000.00	375.00	9
	$67,910.00	$31,400.00	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Irene Linehan and husband to Clarence L. Davis, S'ly ½ of W. 100' of Lot 25, Block 7, Warren & Winslow's Add. to City of St. Paul	$800.00	$370.00	46
Jos. Dahlby and wife to Marie Dahlby, Lot 4, Washburn's Rearrang't of Block 18, 2nd Add. to Merriam Park	4,300.00	1,035.00	22
St. Paul Developing Co. to Frank J. Haggerty, Lot 6, Washburn's Rearrang't of Block 18, 2nd Add. to Merriam Park	500.00	135.00	27
Martin Krammer and wife to Anton Schuster and wife, Lots 1 and 2, Block 2, Watson's Add.	1,325.00	635.00	48
Michael Lynch and wife to Anton J. Krutina, Lot 2, Block 3, Waton's & Rice's Subd. "C" of Block 1, Stinson, Brown & Ramsey's Add. to St. Paul	350.00	175.00	50
John L. Barnes and wife to Julia W. DeCoster, Lot 13, Weed & Willius' Rearrang't of Block 23, Woodland Park Add	3,250.00	4,500.00	135
Gilbert G. Thorne to Trilda Anderson, Lot 17, Block 25, Chas. Weide's Subd. of Blocks 25 and 26, Arlington Hills Add	1,575.00	615.00	39
Raphael Ficht to Ellen Norden, Lot 3, Block 4, Jos. R. Weide's Add	900.00	525.00	58
Raphael Ficht to Ellen Nordon, Lot 3, Block 4, Jos. R. Weide's Add	900.00	525.00	58
Clara S. Earl and husband to Swan Swanstrom, Lot 1, Jos. R. Weide's Subd. of Block 24, Arlington Hills	2,500.00	745.00	30
Swan Swanstrom and wife to Robt. O. Earl, Lot 4, Jos R. Weide's Rearrang't of Lots 29 and 30, Block 16, Arlington Hills acc	1,800.00	500.00	28
Johanna Lachowitzer and husband to Jno. Waldoch, Lot 4, Jos. R. Weides' Rearrang't of N. ½ of Block 3, Syndicate Add. No. 2	2,000.00	590.00	30
Frank Northey and wife to Hugh Carroll, Lot 6, Block 6, West St. Paul Real Estate & Improvement, Syndicate Add. No. 1	300.00	290.00	97
Augusta W. Koegler and husband to Johanna M. Ruhnan, E'ly 50' of Lots 13 and 14, Block 10, the West St. Paul Real Estate & Improvement Syndicate Add. No. 1	2,325.00	850.00	37
Frank A. Regensdorf and wife to Henderson A. Latta, Lots 8 and 9, Block 21, The West St. Paul Real Estate & Improvement Syndicate Add. No. 2	1,900.00	550.00	29
Henderson A. Latta to Ella Stiff, Lots 8 and 9, Block 21, The West St. Paul Real Estate & Improvement Syndicate Add. No. 2	700.00	550.00	79
Genevieve M. O'Grady to Vaclav Novotny, Lots 1 and 2, Block 23, West St. Paul Real Estate & Improvement Syndicate Add. No. 2	150.00	205.00	137
The London & Northwest Am. Mortgage Co. to Ida M. Brons, Lots 8 and 10, Block 24, The West St. Paul Real Estate & Improvement Syndicate Add. No. 2	150.00	260.00	173
State of Minnesota to R. M. Lawton, Lot 8, Block 28, The West St. Paul Real Estate & Improvement Syndicate Add. No. 2	8,600.00	90.00	10
Obed P. Lanpher and wife to Pauline Mademann, W'ly 50' of Lots 9 and 10 and N'ly ½ of W'ly 50' of Lot 8, Block 107, West St. Paul Proper	500.00	321.66	64
	$34,825.00	$13,466.66	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Jos. Buckard and wife to Dolphis Arcand, Lot 5, Block 60, White Bear, Ramsey County, Minn.	$1,000.00	$850.00	45
Edward Yanish to Irene Pottgieser E. 60 ft. of Lot 11, Block 2, Whitney's Subd. of Blocks 1, 2, 7, 8, 9, 10, 15, 16 and part of 17, Brewster's Add. to St. Paul	500.00	1,240.00	248
Christina Jeppson and husband to Frank N. Bass, S. ½ of E. 60' of Lot 12, Block 2, Whitney's Subd. of Brewster's Add. to St. Paul	2,000.00	570.00	29
Frederica Webber to George L. Bisenius, W. 50' of Lots 11 and 12, Block 4, Whitney's Subd. of Blocks 1, 2, 7, 8, 9, 10, 15, 16 and part of 17, Brewster's Add	500.00	781.66	156
John A. Palmquist and wife to William Dorle, Lot 2, Block 1, William's Rearrangement of Block 7 and part of Block 4, Nelson's Add. to St. Paul acc	1,900.00	670.00	35
Jacob Teschner and wife to Katie Cunningham, Lot 18, Block 2, Wilson's Rearrangement of a part of Marshall's Subd. of Block 27, Mackubin and Marshall's Add	5,000.00	1,600.00	32
Joseph R. Weide and wife to Louis Peringer, Lot 14, Block 5, Winter's Add	100.00	135.00	135
St. Paul Universalist Church to Universalist Convention, Lot 12, Block 9, Woodland Park Add	2,300.00	5,140.00	223
Robert R. Dunn and wife to Ella Suydam, Lot 15, Block 13, Woodland Park Add	5,500.00	4,800.00	87
Lavina T. Jones and husband to William J. Kingsland, Lot 19, Block F. Woodland Park Add. to St. Paul	500.00	135.00	27
Clara C. Kundinger and husband et al. to Frederick A. Juenemann, et al., 5.869 acres in N. W. corner of Lot 2, Sec. 14, T. 28, R. 23	3,300.00	1,500.00	45
Charles A. Bergren to Jans Knudson, N. ½ of S. ½ of S. ½ of S. W. ¼ of S. W. ¼, Sec. 16, T. 28, R. 23	1,400.00	415.00	30
The Realty Investment Company to Harry D. Ayer, commencing at a point on S. line of N. ½ of S. E. ¼ of N. E. ¼, Sec. 20, T. 29, R. 23, distant 386.055 W. of Cleveland Ave.	800.00	1,220.00	153
Max Wurst to Benjamin F. Nelson, the Und. 1/12 of S. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, same being 20 acres, more or less	1,000.00		
Valentine Shebat and wife to Benjamin F. Nelson, the Und. 1/12 of S. ½ of W. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, same being 20 acres, more or less	1,000.00		
Martin Shaughnessy to Benjamin F. Nelson, the Und. 2/18 of S. ½ of W. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, same being 20 acres, more or less	1,333.33	5,000.00	42
N. C. Bray and wife to Benjamin F. Nelson, an Und. 1/18 of S. ½ of W. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, same being 20 acres, more or less	666.66		
Henry Poehler and wife to Benjamin F. Nelson, the Und. ½ of S. ½ of W. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, being 20 acres, more or less	4,000.00		
Sylvester Kipp and wife to Benjamin F. Nelson, the Und. ½ of S. ½ of W. ½ of W. ½ of S. W. ¼, Sec. 21, T. 29, R. 23, same being 20 acres, more or less	4,000.00		
	$37,699.99	$24,056.66	

	Consideration	Assessed Val.	Percentage Ass'd Val. of Consid'n
Fred H. Constans and wife to Henry F. Beyer, commencing at a point 651 feet N. and 210 feet W. of S. E. corner of Sec. 36, T. 29, R. 23, ace. (said point being N. E. corner of property to be described) thence S. 140 feet; thence W. 40 feet; thence N. 140 feet; thence E. 40 feet to place of beginning at said N. E. corner of said premises herein described	$1,900.00	$1,550.00	82
Stanislaus Lijewski and wife to Michael Lijnoski, S'ly 85 feet of Lots 13, 14, 15, Block 1, E. M. Mackubin's 2nd Add.	1,240.00	540.00	44
Myles Fallon and wife to John Kane, Lot 10, Grotto Street	350.00	205.00	59
Charles B. Cooley to Henry R. Calewell, Lot 10, Block 13, Stinson's Add.	595.00	595.00	355
Lot 3, Block 2, Lots 1, 4, Block 7, Beaupre & Kelly's Add.		1,520.00	
John C. Beattie to Josephine F. Lord, ½ int. in part of Lot 15, Block 17, Gotrian's Rearr. of Sigels	100.00	37.50	38
Mary B. Stevens to James B. Mair, Lots 13, 14, Block 48, St. Anthony Park, North	875.00	470.00	100
E. 98 feet of Lot 21, Block 3, Edmund Rice's 2nd Add.		405.00	
The Minnesota Land Syndicate to Andrew Larson, Lots 3, 4, 7 to 12, Block 10, Kuhl's Add.		1,570.00	
Lots 5 to 9, Block 26, Summit Park Add.		3,600.00	
Lots 1, 2, 3, 4, Block 21, Dunewell & Spencer's Add. to Brooklyn	15,000.00	1,800.00	56
Lots 1, 3, 4, Block 1, Langevin's Add.		815.00	
Lot 6, Block 8, Morrison's Add. to West St. Paul		585.00	
	$20,060.00	$13,692.50	

RECAPITULATION

Sheet	No. of Transfers	Consideration	Assessed Value
1	20	$28,015.00	$18,725.00
2	21	63,625.00	35,720.00
3	23	30,590.00	15,750.00
4	22	306,681.00	112,415.00
5	22	32,550.00	22,843.33
6	22	21,160.00	16,285.00
7	23	28,687.60	13,315.00
8	18	30,088.33	15,465.00
9	20	22,766.00	15,810.00
10	21	54,510.00	28,065.00
11	21	52,002.00	24,360.00
12	24	25,097.00	13,713.89
13	22	52,852.50	35,027.50
14	23	75,550.00	37,765.00
15	22	41,050.00	27,954.35
16	25	20,404.65	11,713.33
17	21	67,910.00	31,400.00
18	20	34,825.00	13,466.66
19	14	37,699.90	24,056.66
20	7	20,060.00	13,692.50
Totals	411	$1,046,133.07	$527,543.22

Average %..... 50.5

SUMMARY OF PERCENTAGES

Assessed Valuations to Considerations

10% or less	Transfers	14
11% to 20%	"	12
21% to 30%	"	24
31% to 40%	"	55
41% to 50%	"	60
51% to 60%	"	51
61% to 70%	"	41
71% to 80%	"	31
81% to 90%	"	18
91% to 100%	"	17
Over 100%	"	88
Total		411

COMPLAINANT'S EXHIBIT 75. COOPER.—(M. P.)

Appraisal of Right of Way and Station Grounds of the Northern Pacific Ry. Co. within the Corporate Limits of all Cities, Towns and Villages in Minnesota excepting Duluth, St. Paul and Minneapolis, as reported by the Company to the State Railroad Commission, also showing the Appraisal of the same property by the Engineer of the Commission and the difference between the two Appraisals.

City, Town or Village	Section	Company's Appraisal		State's Appraisal		Inc. State over Company—Red Inc. Company over State—Black		Percentage Decrease in Market Value Made Under Company Work; Company Under State Red
		Market Value	Value for Ry. purposes	Market Value	Value for Ry. purposes	Market Value	Value for Ry. purposes	
Thomson	2	$1,121.60	$3,264.80	$280.40	$841.20	$841.20	$2,523.60	75%
Barnum	2	1,380.80	4,172.40	695.40	2,086.20	695.40	2,086.20	50%
Moose Lake	2	1,924.00	5,772.00	962.00	2,886.00	962.00	2,886.00	50%
Sturgeon Lake	2	2,492.00	7,476.00	1,246.00	3,738.00	1,246.00	3,738.00	50%
Willow River	2	2,883.00	8,649.00	1,441.50	4,324.50	1,441.50	4,324.50	50%
Finlayson	2	2,648.00	7,944.00	1,324.00	3,972.00	1,324.00	3,972.00	50%
Hinckley	2	15,579.00	46,737.00	5,115.80	9,347.40	10,463.20	37,389.60	80%
Pine City	2	15,356.00	46,068.00	7,678.00	23,034.00	7,678.00	23,034.00	50%
Rush City	2,7	22,390.00	67,197.00	12,272.00	36,816.00	10,127.00	30,381.00	45.2%
Harris	7	12,748.50	38,245.50	4,249.50	12,748.50	8,499.00	25,497.00	66.7%
North Branch	7	1,268.00	3,804.00	1,268.00	3,804.00			
Wyoming	2,8	5,724.00	17,172.00	3,597.00	10,191.00	2,227.00	6,981.00	40.7%
Forest Lake	8	12,484.00	37,452.00	3,121.00	9,363.00	9,363.00	28,089.00	75%
Hugo	8	4,136.00	12,408.00	2,068.00	6,204.00	2,068.00	6,204.00	50%
Carlton	2,4,5,10	2,436.80	7,310.40	2,870.80	8,612.40	442.70	1,328.10	18.2%
Scanlon	5	2,780.00	8,340.00	139.00	417.00	2,641.00	7,923.00	95%
Cloquet	5	5,792.00	17,196.00	5,792.00	17,196.00			
Chisago	5	5,538.00	16,614.00	2,769.00	8,307.00	2,769.00	8,307.00	50%
Lindstrom	5	2,652.00	7,956.00	1,326.00	3,978.00	1,326.00	3,978.00	50%
Center City	5	1,264.00	3,792.00	632.00	1,896.00	632.00	1,896.00	50%
Taylors Falls	5	5,586.50	25,195.50	5,586.00	16,797.00	2,793.50	8,398.50	33.3%
Stillwater	9	108,007.70	216,587.70	108,007.76	216,587.70			
Cromwell	10	1,550.50	4,675.50	1,550.50	4,675.50			
MacGregor	10	2,862.50	8,587.50	2,862.50	8,587.50			
Aitkin	10	10,055.00	42,165.00	2,764.00	20,304.00	7,287.00	21,861.00	45.4%
Brainerd	10	426,704.50	681,103.50	135,120.00	275,340.00	291,584.50	874,753.50	70.6%
Pillager	10	2,050.50	6,176.50	686.50	2,059.50	1,376.00	4,119.00	66.7%

Motley	10	5,544.00	25,662.00	6,156.00	6,426.00	6,426.00	19,224.00	75%
White Bear	11,15	44,220.00	82,152.00	4,116.00	42,837.00	1,272.75	2,272.75	2.7%
Anoka	12	2,808.00	13,527.00	7,718.77	5,147.50	868.68	2,870.50	21.2%
Elk River	14	2,808.00	6,912.00	1,200.00	3,717.00	2,295.00	6,195.00	89.6%
Big Lake	14	2,412.00	6,048.00	1,764.00	3,262.00	276.00	1,784.00	29.5%
Bunker	14	576.45	1,152.25	176.00	722.00	204.45	812.25	70.5%
Clear Lake	14	2,808.00	6,912.00	2,304.00	7,212.00	601.00	1,805.00	26.1%
St. Cloud	14	12,177.50	29,952.50	8,742.00	20,226.00	2,433.50	7,791.50	26.0%
Sauk Rapids	14	17,280.00	42,530.00	7,192.00	31,276.00	10,788.00	22,564.00	53.0%
Haven	14	4,028.00	12,084.00	2,014.00	6,042.00	2,014.00	6,042.00	50.0%
Royalton	14	12,096.00	40,013.00	10,584.00	30,012.00	5,292.00	15,876.00	39.7%
Little Falls	14,15,16	84,600.00	101,284.50	22,325.44	48,701.62	44,650.56	58,192.06	57.7%
Randall	14	1,855.00	5,562.00	927.50	2,782.50	927.50	2,782.50	50.0%
Swanville	16	1,728.00	3,787.00	642.00	1,929.00	1,286.00	3,858.00	66.7%
Burtrum	16	1,560.00	3,550.00	605.75	2,181.25	1,156.25	3,456.75	82.5%
Grey Eagle	16	1,296.00	3,088.00	696.00	2,004.00	696.00	2,004.00	50%
Sauk Center	16	5,760.00	17,370.00	5,760.00	17,370.00			
Villard	16	4,164.00	12,492.00	2,082.00	6,246.00	2,082.00	6,246.00	50%
Glenwood	16	1,240.00	2,720.00	920.00	1,860.00	310.00	1,240.00	25
Starbuck	16	2,884.00	6,962.00	1,442.00	4,326.00	1,442.00	4,326.00	50%
Cyrus	16	976.80	2,929.50	651.00	1,953.00	325.50	976.50	33.3%
Morris	16	10,426.00	31,284.00	10,426.00	31,284.00			
Stanley	12,14,17	44,702.00	134,103.00	28,902.88	83,711.15	15,799.47	47,394.97	35.3%
Wadena	17	20,580.00	68,577.00	20,580.00	68,577.00			
Bluffton	17	9,891.00	29,673.00	4,945.50	14,836.50	4,945.50	14,836.50	50%
New York Mills	17	9,890.00	29,670.00	4,945.00	14,835.00	4,945.00	14,835.00	50%
Perham	17	12,000.00	46,700.00	5,225.00	6,875.00	6,975.00	20,025.00	75%
Lake	17	3,364.00	10,092.00	2,682.20	8,046.60	670.80	2,012.40	20%
Frazee	17	10,815.00	32,445.00	4,326.00	12,978.00	6,489.00	19,467.00	60%
Detroit	17	29,815.00	86,445.00	14,265.00	42,795.00	13,550.00	13,550.00	48.7%
Audubon	17	6,110.00	18,330.00	2,291.25	6,873.75	3,815.75	11,456.25	62.5%
Lake Park	17	11,736.00	35,208.00	5,868.00	17,604.00	5,868.00	17,604.00	50%
Winnepeg Jct.	17,19	9,200.80	27,619.80	6,305.80	18,910.80	2,900.00	8,709.00	31.5%
Hawley	17	10,504.00	58,512.00	9,752.00	29,256.00	9,752.00	29,256.00	50%
Glyndon	17	10,662.00	31,986.00	5,331.00	15,993.00	5,331.00	15,993.00	50%
Moorhead	17	45,670.00	137,010.00	22,835.00	68,505.00	22,835.00	68,505.00	50%
Deer Creek	18	5,103.00	15,309.00	1,701.00	5,103.00	3,402.00	10,206.00	66.7%
Henning	18	7,912.50	23,097.50	3,795.00	11,385.00	4,117.50	11,709.50	52%
Clitherall	18	916.00	2,748.00	667.00	2,001.00	220.00	667.00	24%
	Carried forward.	$1,171,341.45	$2,295,030.45	$508,228.09	$1,035,402.94	$522,515.56	$980,367.51	

City, Town or Village	Section	Company's Appraisal		State's Appraisal		Inc. State over Company—Red Inc. Company over State—Black		Percentage Decrease in Market Value State under Company Black: Company under State Red
		Market Value	Value for Ry. purposes	Market Value	Value for Ry. purposes	Market Value	Value for Ry. purposes	
Brought forward		$1,171,341.45	$2,595,030.45	$599,828.09	$1,635,652.94	$622,513.36	$960,367.51	
Battle Lake	18	7,680.00	23,040.00	3,072.00	9,216.00	4,608.00	13,824.00	60%
Fergus Falls	18	24,662.00	73,986.00	18,282.00	54,846.00	6,380.00	19,140.00	25.9%
Foxhome	18	1,520.00	4,560.00	760.00	2,280.00	760.00	2,280.00	50%
Breckenridge	18	11,310.00	33,930.00	4,524.00	13,572.00	6,786.00	20,358.00	60%
Ulen	19	2,199.00	6,597.00	1,099.50	3,298.50	1,099.50	3,298.50	50%
Twin Valley	19	2,044.50	6,133.50	1,022.25	3,066.75	1,022.25	3,066.75	50%
Gary	19	1,231.00	3,693.00	615.50	1,846.50	615.50	1,846.50	50%
Fertile	19	4,390.00	13,170.00	2,195.00	6,585.00	2,195.00	6,585.00	50%
Crookston	19	29,680.85	89,042.55	11,343.00	34,029.00	18,337.85	55,013.55	61.8%
E. Grand Forks	19	62,535.00	187,605.00	25,014.00	75,042.00	37,521.00	112,563.00	60%
Red Lake Falls	20	6,921.00	20,763.00	4,614.00	13,842.00	2,307.00	6,921.00	33.3%
Verndale	17	18,421.50	55,264.50	7,368.60	22,105.80	11,052.90	33,158.70	60%
Grand Total		$1,343,936.30	$3,112,815.00	$678,737.94	$1,874,392.49	$665,198.36	$1,238,422.51	

COMPARISON SUMMARY

State decreases	Company	1	Item.....80% or 4/5
" "	"	4	" .....75% or 3/4
" "	"	5	" .....66⅔% or 2/3
" "	"	6	" .....60% or 3/5
" "	"	26	" .....50% or 1/2
" "	"	4	" .....33⅓% or 1/3
" "	"	3	" .....25% or 1/4
" "	"	3	" .....20% or 1/5
" "	"	16	" .....varying percentages
" increases	"	2	" " "
Appraisals indentical		8	"
Total		78	Items

COMPLAINANT'S EXHIBIT 76. COOPER.

NORTHERN PACIFIC RAILWAY COMPANY

Comparison of "Market Value" appraisal of Right of Way and Station Grounds of the Northern Pacific Railway Company in the cities and towns enumerated, as reported by the Company to the State Railroad Commission, as reported by the Engineer of the State Railroad Commission, and as made by Local Appraisers.

City or Town	Company	State Engineer	Local Appraisers	Names of Local Appraisers
Brainerd	$425,704.50	$125,120.00	$352,801.75*	Con. O'Brien, J. M. Elder, W. D. McKay
Stillwater	108,997.70	108,997.76	127,113.00	L. B. Castle, R. W. McGarry
Little Falls	66,890.00	22,233.44	151,805.00	H. Landahl, John Vertin
East Grand Forks	62,535.00	25,014.00	93,890.00	G. R. Jacobi, T. A. Sullivan
White Bear	46,224.00	49,116.19	58,978.00	H. A. Warner, J. A. Haussner
Moorhead	45,670.00	22,835.00	160,998.61	S. G. Comstock, C. A. Wheelock
Staples	44,702.00	28,902.53	185,400.00	E. E. Greeno, W. H. Poore
Crookston	29,680.85	11,343.00	27,025.00	E. M. Walsh, J. D. McPhee
Wadena	29,559.00	29,559.00	32,338.60	R. G. Isherwood, Asher Murray
Detroit	26,815.00	14,265.00	43,712.50	C. G. Sturtevant, John K. West
Fergus Falls	24,662.00	18,282.00	48,551.00	Fred H. Lake, George B. Lowry
Totals	$911,440.05	$455,667.92	$1,282,612.46	

* The local appraisers omitted valuing a strip of right of way in Brainerd the "market value" of which in Company Report is $2,906.00, and in State Engineer's Report $14,980.00.

COMPLAINANT'S EXHIBIT 77. COOPER. (N. P.)

Statement of Expenditures for Right of Way for New Line of Northern Pacific Railway between France and Detroit and between Lake Park and Glyndon, Minnesota, covering all Expenditures from the Commencement of the work, February 1906, to October 31st, 1906.

Line change near McHugh.

Description	Purchased From	Acres	Price
Strip 200' wide, across those portions lots 1 and 2, in section 20-138-40, lying southwesterly of original R/W	Olof Christianson	5.33	$750.00
Strip 200' wide across lot 5 in Sec. 20-138-40	Oscar Wilson	3.28	400.00
Strip 200' wide across lot 4 in Sec. 20-138-40, also a strip 300' wide across S. E. ¼, N. W. ¼ and N. E. ¼ N. W. ¼ said Sec. 20	Herman Moschell	18.39	2,700.00
Strip 300' wide across N. W. ¼, N. W. ¼ Sec. 20-138-40, also strip 200' wide across portion S. W. ¼, S. W. ¼ Sec. 17-138-40, lying southwesterly of original right of way	David Graham	9.62	1,700.00
East of Lake Park.			
Strip 100' wide in lot 13 of Sec. 1-139-43	H. Vegager	3.14	300.00
Strip 100' wide in N. W. ¼ S. W. ¼ Sec. 1-139-43	L. Odegaard	3.19	150.00
Irregular strip for wye track in N. W. ¼ S. W. ¼ Sec. 2-139-43	Hans Hanson	1.69	200.00
Platted and Unplatted Property at Lake Park.			
Strip of land 100' wide in N. E. ¼ S. E. ¼ Sec. 3-139-43 lying easterly of Lincoln Street, Lake Park	Canfield Estate	0.85	
Strip in S. ½ N. E. ¼ Sec. 3-139-43, between original R/W and south line of S. ½ N. E. ¼	Do	1.75	3,000.00
Strip in N. W. ¼ S. E. ¼ Sec. 3-139-43, lying within 125' of original R/W and west of Youngberg tract	Do	1.35	
Strip 125' wide in E. ½ W. ½ of Sec. 3-139-43	Do	3.86	
Youngberg tract in N. W. ¼ S. E. ¼ Sec. 3-139-43	Emma Youngberg	0.82	250.00
Strip 25' wide in N. E. ¼ S. E. ¼ Sec. 3-139-43, lying east of Lincoln St., Lake Park, also lot 1 and N. ½ lot 2, Blk. 7, Canfield's 4th Add.	Wangensteen & Bjorge	0.449	5,500.00
Lots 12, 13, 14, Blk. 7, Canfield's 4th Add.	W. J. Norby	0.516	1,950.00
Lots 1 and 2, Blk. 13, Canfield's 4th Add.	W. J. Norby	0.344	675.00
Lot 14 and N. ½ lot 13, Blk. 13, Canfield's 4th Add.	J. A. Danielson & C. R. Anderson	0.258	5,000.00
N. ½ lot 3, Blk. 15, Canfield's 2nd Add.	W. J. Herring	0.096	400.00
	Carried forward	54.812	22,825.00

Description	Purchased From	Acres	Price
	Brought forward	58.812	$22,575.00
Lots 1 and 2; Blk. 15, Caldwell's Sub. Add.	C. E. Anderson	0.360	1,000.00
Strip 1225' wide in W. ½ N. W. ¼ Sec. 3-169-42	L. & A. Sweetman	6.40	288.00
Lake Park to Bisley.			
Strip 1225' wide in S. E. ¼ of S. E. ¼ Sec. 33-169-42	A. Sweetman	4.07	200.15
Strip 1225' wide in S. W. ¼ S. E. ¼ Sec. 33-169-42	A. & E. Sweetman	1.16	52.75
Strip 1225' wide in N. W. ¼ of S. E. ¼ Sec. 33-169-42	C. A. Peck	2.40	96.00
Strip in N. ½ S. W. ¼ Sec. 33-169-42, between original R. W. and a line 1000' southerly from and parallel with center line of said track	Sweetman, Swanson	8.07	362.15
Strip in N. E. ¼ S. E. ¼ Sec. 33-169-42, between original R. W. and a line 1000' southerly from, said parallel with center line of main track	L. A. Day	2.79	82.00
Triangle in N. W. ¼ S. E. ¼ Sec. 33-169-42, between original R. W. and a line 1000' southerly from and parallel with center line main track	C. Anderson	0.62	110.25
Triangle in S. W. ¼ N. W. ¼ of S. W. ¼ Sec. 33-169-42, between original R. W. and a line 1000' southerly from said parallel with center line main track	Wm. C. Schick	3.35	100.50
Strip 2000' wide in S. ½ W. E. ¼ and N. E. ¼ S. E. ¼ Sec. 33-169-42	C. Schick & C. Olson	7.01	300.50
Part N. W. ¼ S. E. ¼ and N. E. ¼ S. W. ¼ Sec. 33-169-42, between original R. W. and a line 1000' S. E'ly from and parallel with center line of main track	Wm. Olson	12.30	615.00
2000' strip across Lot 3 in Sec. 33-169-42	Mary C. Anderson	6.06	300.00
Strip 2000' wide across N. E. ¼ S. E. ¼ and E. 65½ acres of N. W. ¼ S. E. ¼ Sec. 33-169-42	Wm. Sorgenfrei	6.78	300.00
Strip 2000' wide across N. W. ¼ S. E. ¼ Sec. 33-169-42 (Rec. E. 65½ acres) and N. E. ¼ S. W. ¼ Sec. 33-169-42	Wm. Sorgenfrei	12.18	1,200.00
Strip 2000' wide across N. W. ¼ S. W. ¼ Sec. 33-169-42	C. Anderson	6.06	264.00
Strip 2000' wide across N. ½ S. E. ¼ Sec. 33-169-42 and strip 2000' wide in N. E. ¼ S. W. ¼ Sec. 33.	Mrs. Christensen	20.41	1,300.00
Strip 2000' wide S. ½ N. W. ¼ and N. W. ¼ N. W. ¼ Sec. 33-169-42	Wm. Rothwell	9.44	1,400.00
Strip 2000' wide in E. ½ N. E. ¼ Sec. 33-169-42	John Olson	7.00	100.00
Pt. N. W. ¼ N. E. ¼ Sec. 33-169-42 lying southeasterly of a line 1000' southeasterly from and parallel with center line of main track	Samuel Olson	4.00	200.00
Triangle in S. W. ¼ of S. E. ¼ Sec. 28-169-42	Andrew Olson	2.80	200.00
	Carried forward	125.8[illegible]	$[illegible]

Description	Purchased From	Acres	Price
	Brought forward	179.876	$34,003.10
Strip in S. ½ S. W. ¼ Sec. 27-140-44, lying southerly of a line 100' northerly from and parallel with center line of new main track	Aug. Frisk	12.12	909.00
Pt. S. E. ¼ S. E. ¼ Sec. 28-140-44, lying S'ly of a line 150' N'ly from and parallel with center line of new main track	Nickolay Sandman	7.58	450.00
Strip of land in S. W. ¼ S. E. ¼ Sec. 28-140-44, also strip in S. ½ S. W. ¼ Sec. 28	John Carlson	14.85	2,200.00
Part N. W. ¼ N. E. ¼ Sec. 33-140-44, lying within 150' of center line of new main track	Ernest Estrin	2.10	81.00
Part N. ½ N. W. ¼ Sec. 33-140-44, lying N. W'ly of a line 100' S. E'ly from and parallel with center line of new main track	Fred Ereksen	8.27	500.00
Strip 200' wide across N. E. ¼ N. E. ¼ Sec. 32-140-44	Peter Westberg	6.70	650.00
Strip 200' wide in W. ½ N. E. ¼ Sec. 32-140-44	C. J. Cederberg	7.44	1,550.00
Strip 200' wide in S. E. ¼ N. W. ¼ and N. E. ¼ S. W. ¼ Sec. 32-140-44	John G. Hullgren	7.27	800.00
Strip 200' wide in S. W. ¼ N. W. ¼ and N. W. ¼ S. W. ¼ Sec. 32-140-44	W. J. Lewis, et al	7.62	900.00
Strip 200' wide in E. ½ S. E. ¼ and S. W. ¼ S. E. ¼ Sec. 31-140-44	Adolph Swenson	13.87	2,625.00
Triangle in S. E. ¼ S. W. ¼ Sec. 31-140-44	J. H. Lewis, et al	0.48	35.00
Strip 200' wide across Lots 2, 3 and 4 in Sec. 6-139-44	Geo. W. Hammett Attorney for James Burns	11.07	1,750.00
Strip 200' wide in lot 5, Sec. 6-139-44	H. L. Trimble & Chris Burns	3.58	358.00
In Corporate Limits of Hawley.			
Strip 200' wide across S. ½ N. E. ¼ and that portion N. ½ S. E. ¼ Sec. 1-139-45 outside platted townsite	Walter Shave	11.20	4,972.00
Part of tract bounded by Buffalo, Main and First Streets in Hawley lying N. W'ly of a line 100' S. E'ly from and parallel with center line of main track and N'ly of a line 20' N'ly from and parallel with N'ly line of Main St.	Walter Shave	2.20	1,028.00
Part of tract bounded by Buffalo Main and First Sts. lying W'ly of Buffalo River and between 2 lines N'ly from and parallel with Main St. and intersecting E'ly line of Buffalo Ave. at points distant respectively 24' and 174' N. E'ly from intersection of E'ly line of Buffalo Ave. with N'ly line of Main St., as measured along E'ly line of Buffalo Avenue	Wm. Turkington	0.20	200.00
	Carried forward	296.516	$53,011.10

Description	Purchased From	Acres	Price
	Brought forward	296.516	$53,011.10
Lots 7, 8, 9, Blk. 32 and part unplatted tract bounded by Buffalo, Main and First Sts. commencing at intersection of N'ly line of Main St. and E'ly line of Buffalo Ave.; thence N. E'ly along E'ly line of Buffalo Ave. 24'; thence E'ly parallel with N. line of Main St. 100'; thence at right angles S'ly to N. line of Main St.; thence W'ly along N. line of Main St. 120' to place of beginning	L. L. Hagen	0.289	3,125.00
Block C, Town of Hawley	V. E. Herring	0.300	1,900.00
Part of lot 1 to 6, inclusive Blk. 17, lying within 150' of center line of new main track	Chas. Hagen	0.190	801.00
Lot 10, Block 32	Oline Larson	0.074	1,200.00
Lots 1, 2, 7, 8 Blk. 33	Hans Rushfeldt	0.308	3,750.00
Lots 3, 4, 5, 6, Blk. 33	Eline C. Grue	0.296	3,500.00
Lots 11 and 12, Blk. 33	Mpls. Brewing Co.	0.160	350.00
Lot 24 and N. ½ of 23, Blk. 34	P. A. Berg	0.120	2,800.00
Parts of lots 20, 21, 22, Blk. 33 lying within 100' of center line of new main track	M. O. Nyholm	0.120	250.00
Part of lots 23 and 24, Bl. 33 lying within 100' of center line of track	Ann Glasgow, et al.	0.160	950.00
Portion of the N. 150' tract bounded by 6th, Hobart and 5th and Valley Sts. lying within 100' of center line of new main track	Nels K. and Mary S. Lee	0.800	4,000.00
Portion of the tract bounded by 6th, Hobart, 5th and Valley Sts. lying southerly of a line 150' southerly from and parallel with south line of Hobart St. and within 100' of center line of new main track	C. J. Hammerstrom	0.830	3,650.00
Lots 9 and 10, Blk. 33; lots 21, 22 and S. ½ lot 23, Blk. 34	A. Johnson	0.324	8,000.00
Lots 19 and 20, Blk. 34	I. C. Hauge	0.160	2,000.00
Part of the following lots in Hawley lying within 150' of center line of new main track have been purchased for street purposes and to even out right of way.			
Lot 7, Blk. 17	F. R. Hall	.006	1,050.00
Lots 5 and 6, Blk. 32	Knute H. Omberg	.092	805.00
Lots 11, 12, 13, Blk. 32	August Olson	.201	3,250.00
Lots 14 and 15, Blk. 32	Gustav Sjordal	.103	1,926.00
Strip 200' wide across N. W. ¼ Sec. 12-139-45, except portion belonging to James McDonald	H. F. Mensing	12.90	5,500.00
Tract 140' x 50' in the N. W. ¼ Sec. 12-139-45 falling partly within strip above described	Jas. McDonald	0.16	1,500.00
From Hawley West.			
Strip 200' wide across S. W. ¼ Sec. 12-139-45	Mary and John O'Donnell	12.94	5,000.00
Strip 200' wide across W. ½ of N. W. ¼ Sec. 12-139-45	Jas. and Mike O'Donnell	4.50	1,750.00
	Carried forward	331.439	$110,968.10

Description	Purchased From	Acres	Price
	Brought forward	331.439	$110,968.10
Part S. E. ¼ N. E. ¼ Sec. 14-139-45 lying S. E'ly of a line 100' N. W'ly from and parallel with center line of main track	Carl Bondel	2.75	137.50
Part E. ½ N. E. ¼ Sec. 14-139-45 between strip last above described and a line drawn 166' N. W'ly from and parallel with relocated line	Do	19.11	2,000.00
Strip 300' wide, viz: 100' wide on N. W'ly side and 200' wide on S. E'ly side of center line of main track across N. E. ¼ S. E. ¼ and W. ½ S. E. ¼ Sec. 14-139-45; also two add'l strips in S. W. ¼ S. E. ¼ one being 150' wide on northerly side and the other 50' wide on southerly side of strip first above described and 940' long measured along center line of track from north and south center line of section	E. C. Jacobsen	28.11	3,596.00
Add'l strip in N. ½ S. E. ¼ Sec. 14-139-45 lying between N. W'ly line of strip last above described and a line drawn 100' N. W'ly from and parallel with center line relocated main track	Do	3.21	1,000.00
Strip 500' wide across S. E. ¼ S. W. ¼ Sec. 14-139-45	Aug. Thysel	10.35	450.00
Part N. ½ N. W. ¼ Sec. 22-139-45 lying N. W'ly of a line 250' S. E'ly from and parallel with center line of main track	Ole Olson	30.18	1,509.00
Strip 500' wide, 250' on each side of center track across N. E. ¼ N. E. ¼ Sec. 22-139-45 and a strip 300' wide, 100' on N. W'ly side and 200' on S'ly side of said center line across S. ½ S. W. ¼ Sec. 15-139-45	Mary and Alex Fountain	24.79	4,462.50
Strip 500' wide, being 250' on each side of center line of main track across N. W. ¼ N. E. ¼ Sec. 22-139-45	C. J. Thysell	15.65	950.00
Part of N. E. ¼ N. W. ¼ Sec. 22-139-45 lying N. E'ly of a line 250' S. W'ly from and parallel with center line of main track	Carl Peterson	18.73	977.50
Part N. W. ¼ N. W. ¼ Sec. 22-139-45, lying N. E'ly of a line 250' S. W'ly from and parallel with center line of main track	Mary George	1.65	82.50
Strip 300' being 100' on northerly side and 200' wide on southerly side of center line of main track across S. E. ¼ S. E. ¼ Sec. 16-139-45	H. S. Blakeway	9.63	1,450.00
Strip 300' wide being 100' on N. E'ly side and 200' on S. W'ly side of center line of main track across S. W. ¼ S. E. ¼ Sec. 16-139-45	Mary A. Blakeway	6.54	800.00
	Carried forward	502.138	$128,583.60

COMPLAINANT'S EXHIBIT 77. COOPER. (N. P.)—*Cont.*

Description	Purchased From	Acres	Price
	Brought forward	502.139	$128,383.60
Part of N. W. ¼ S. E. ¼ Sec. 16-139-45 lying S. W'ly of a line 100' N. E'ly from and parallel with center line of main track	A. N. Kronbeck	3.50	1,000.00
Strip 300' wide, being 100' wide on N. E'ly side and 200' wide on S. W'ly side of center line of main track across N. E. ¼ S. W. ¼, E. ½ N. W. ¼ S. W. ¼, Sec. 16-139-45	Eva Larson	14.26	1,700.00
Strip 300' wide, being 100' wide on N. E'ly side, 200' wide on S. W'ly side of center line of main track across S. W. ¼ N. W. ¼ and W. ½ N. W. ¼ Sec. 16-139-45	I. L. Christenson	5.36	900.00
Strip 300' wide being 100' wide on N. E'ly side and 200' wide on S. W'ly side of center line of main track across S. ½ N. E. ¼ and N. E. ¼ of S. E. ¼, Sec. 17-139-45	M. E. Silvius	19.81	1,565.00
Strip 200' wide across E. ½ N. W. ¼ of Sec. 17-139-45	W. F. Ball	6.56	1,200.00
Strip 200' wide across N. W. ¼ N. W. ¼ Sec. 17-139-45	D. T. McDonald	6.10	244.00
Part N. E. ¼ N. E. ¼ Sec. 18-139-45 lying N. E'ly of a line 200' S. W'ly from and parallel with center line of main track	S. A. Weaver	7.95	198.75
Strip in S. ½ N. E. ¼ Sec. 11-139-46 lying S. W'ly of Southerly line of present R/W and between two lines drawn 100' N. E'ly and 150' S. W'ly of center line of new main track	E. F. Pierce	9.97	500.00
Strip 200' wide across E. ½ S. E. ¼, N. W. ¼ S. E. ¼ and S. ½ N. W. ¼ Sec. 12-139-46; also strip 300' wide across N. ½ S. W. ¼ Sec. 12-139-46	T. B. C. and R. T. Evans	28.52	3,856.00
Strip of land in N. ½ of Sec. 9-139-46	Mrs. S. K. Shermoen	5.560	308.00
Strip of land in S. ½ of N. E. ¼ Sec. 7-139-46	American Mortgage Co. of Scotland	.910	40.00
Tract in S. W. ¼ of S. W. ¼ Sec. 15-139-45 (Bought to secure vacation of highway)	M. Fountain	3.400	170.00
Total		614.039	$140,065.35
Miscellaneous Charges.			
Right to change channel in S. E. ¼ of N. E. ¼ Sec. 7-139-46	American Mortgage Co. of Scotland	.....	$50.00
Right to change channel in Sec. 7-139-45	L. Welter	.....	2,100.00
Damages for vacating highway Riverton Township	Riverton Township	.....	2,400.00
Release, including additional strip in S. ½ N. W. ¼ Sec. 9-139-46 for new highway Riverton Township	C. B. Romkey	.....	900.00
Release, account vacating highway Riverton Township	S. Shermoen	.....	1,000.00
Removing Telephone poles from new R/W strip	N. W. Telephone Exchange Co.	.....	1,923.00
	Carried forward	614.039	$148,438.35

COMPLAINANT'S EXHIBIT 77. COOPER. (N. P.)—*Cont.*

Description	Purchased From	Acres	Price
	Brought forward	614.039	$148,438.35
Easements for pipe line in Sec. 2-139-43	M. Ristvedt		150.00
	T. Hanson		50.00
	Wangensteen and Olson		50.00
Easements for Drainage Ditches	C. E. Bjorge		50.00
In S. W. ¼ of S. E. ¼ Sec. 27-140-44	A. Ulven		150.00
In lots 2 and 3 Sec. 29-140-43	L. Larson		75.00
In S. E. ¼ Sec. 4-139-43	N. Swanstrom		100.00
In S. E. ¼ of N. W. ¼ Sec. 7-138-40	S. A. Davis		100.00
In S. ½ of S. W. ¼ Sec. 13-139-42	P. J. Malvick		200.00
Release of damages to tract of land in Hawley account construction of new line	O. O. Hagen		1,700.00
Release of damages to lots 7 to 11, Blk. 18, Hawley, account new line	G. H. Halvorsen		50.00
Release of damages to tract of land in Hawley account new line	J. McDonald		600.00
Waiver of crossing in N. W. ¼ Sec. 12-139-45	H. F. Mensing		51,00.00
Salaries and expenses employes Right of Way Department, abstracts, recording fees, and other miscellaneous expenses			9,508.10
Total		614.039	$163,121.45

SUMMARY

	Acres	Cost	Per Acre
Hawley	31.173	$62,924.80	$2,018.56
Lake Park	17.026	19,765.06	1,160.13
Country	565.840	80,431.59	142.15
Total	614.039	$163,121.45	$265.65

NOTE: In the summary, the expense of acquiring the property as set forth above, amounting to $9,508.10, is apportioned to the three subdivisions of property by adding 6.19 per cent to each.

MAPS
TOO
LARGE
FOR
FILMING

COMPLAINANT'S EXHIBIT 78. COOPER. (N. P.)

Statement showing Amounts Paid to Abutting Property Owners for Release of Damages from Operation of Tracks on First Street North, Ramsey Street, Mulberry Street and Main Street Northeast, Minneapolis.

RAMSEY STREET

Deed	Date	Grantor	Lot	Block	Addition	Price
164	June 5, 1885	John W. Rafferty	5	5	Orth's	$400.00
"	"	Martin Schultze	6, 7 & 8	5	"	1,000.00
208	April 4, 1890	Martin Schultze	"	"	"	216.00
206	Oct. 24, 1884	John Orth, et ux	8 to 12	7	"	1.00
			7 to 12	3	"	
164	June 5, 1885	John Hipp	5	4	"	600.00
"	"	Lewis Baum	7	4	"	500.00
"	"	Bernhart Jessing	9	4	"	250.00
"	"	Frank Scholer	N. ½ L. 10	4	"	250.00
"	"	Gottfried Boehme	S. ½ L. 10	4	"	1,200.00
207	Aug. 5, 1885	John A. Benschlien, et al	11 & 12	4	"	1,200.00
209	Aug. 25, 1885	Anton Trump	13	7	"	1,550.00
300	Oct. 23, 1884	John B. Gillilan		9	"	
				2 & 3	Goldsmith's	
			1 & 3	24	Bottineau's	1.00
			2	21	"	
			10	16	"	
301	Aug. 27, 1885	Paul H. Roy, et ux	2	24	"	404.66
314	Sept. 27, 1884	Minn. Soap Co.	2 & 3	14	"	5.00
302	Aug. 25, 1885	William Garland	5	23	"	500.00
303	"	Joseph Marlenka	4	23	"	500.00
304	Aug. 24, 1885	Chas. Kiesterputw	1, 2 & 3	23	"	1,500.00
305	Dec. 14, 1885	John F. Wilcox, et ux	6 & 7	15	"	1.00
306	"	Jesse B. Chatterton	8 & 9	15	"	1.00
307	Nov. 10, 1884	Henry M. Hobart	6 to 10	15	"	1.00
			5	22	"	

208	Dec.	4, 1884	Elizabeth S. Leavitt	6		16	"	1.00
164	June	5, 1885	Patrick Hanley	7		16	"	550.00
"		"	Zephenig Demules, et al	8		16	"	550.00
"		"	James McCarty	9		16	"	550.00
164		"	Johanna Lee	11 & 12		17	"	1,400.00
"		"	Daniel Hayes	10		21	"	500.00
209	Sept.	1, 1885	Joseph Prineau, et ux	9		21	"	500.00
164	June	5, 1885	Chas. Kotz	7		17	Northrup's	500.00
"		"	Mary M. Pauly, et al	8		17	"	550.00
210	Aug.	25, 1885	Minn. Cy. Catholic B. & L. Ass'n	1		21	"	925.00
164	June	5, 1885	Daniel Hayes	3 & 4		21	"	900.00
			Total consideration					$16,306.66
			FIRST STREET NORTH					
200	April	16, 1885	Nathaniel G. Leighton, et ux	7 to 12		17	Bassett, Moore & Case's	$10,877.67
202	July	17, 1884	Sophia Goetz, et al	7		24	" " "	1,800.00
201		"	August Engman, et ux	8		24	" " "	1,000.00
164	June	24, 1884	Chas. Clarke, et al	9		24	" " "	1,000.00
164		"	Chas. Sandhoff	10 to 12		24	" " "	3,250.00
203	July	15, 1884	T. B. Walker, et al	7 to 12		25	" " "	4,200.00
163	June	24, 1884	Henry H. Smith, et al	7 to 12		32	" " "	2,500.00
"		"	Henry H. Smith, et al	5 to 8		33	" " "	1,200.00
207	April	24, 1880	E. S. Jones, et al	3 & 4		34	" " "	1.00
208	Sept.	15, 1888	Godfrey Moffitt, et ux	7		5	North Minneapolis	800.00
216	March	20, 1880	Chas. F. Hagin	1 & 2		10	" "	1.00
211	Aug.	10, 1884	John C. Reno, et ux	1 & 2		6	" "	480.00
				2, 3 & 4		7	" "	300.00
209	Dec.	28, 1886	Caleb Winslow, et al	3		6	" "	
Dead	missing		Mpls. Mutual Benefit Ass'n	4 to 7		6	" "	400.00
212	July	21, 1884	Bldg. & Loan Ass'n	6		7	" "	800.00
213	Aug.	14, 1884	John Osborn	5		7	" "	950.00
217		"	Alex. N. P. Douglas, et ux	1		7	" "	1.00
325	March	25, 1880	Joseph H. Thompson, et ux	6		8	" "	1.00
326	April	21, 1880	Henry Clyde	4		8	" "	1.00
323	Nov.	25, 1884	Elizabeth K. Lee and husband	10, 11 & 12		10	Demmon's	
							Carried forward,	$29,180.67

Deed	Date	Grantor	Lot	Block	Addition	Price
					Brought forward,	$28,160.67
164	June 5, 1885	Chas. Witt, et al.	1 & 2	9	Dommon's	200.00
"	"	Edwin Corsner, et al.	14	10	"	200.00
328	Oct. 18, 1884	Alvin A. Eichhorn	8	3	"	5.00
164	June 5, 1885	Zilpah J. Carlisle, et al.	1 to 7	4	"	175.00
"	"	Walter Murch	14	3	"	100.00
333	Oct. 6, 1884	Francis Morrison	9 to 13	3	"	
			5, 6 & 7	21	Morrison's	5.00
			1 to 6	29	"	
			7 to 12	30	"	
339	Oct. 6, 1884	Francis Morrison	1 to 6	3	"	
			7 to 12	2	"	
			8 to 14	15	"	5.00
			8 to 12	20	"	
335	Dec. 1, 1884	E. B. Moor	13 & 14	20	"	1.00
334	Oct. 30, 1884	Emory C. Mower, et ux.	1 to 4	21	"	
			1 to 7	14	"	5.00
		Total consideration				$28,858.67
		MULBERRY ST. LINE				
285	Oct. 31, 1885	Geo. T. Mills	5	13	Bottineau's 2nd Add.	$150.00
		MAIN STREET NORTHEAST				
225	Nov. 3, 1884	John Moylan, et ux.	6 & 7	12	Bottineau's 2nd Add.	$100.00
162	May 14, 1884	Michael Pieno, et al.		7	" "	375.00
"	"	" " "		6	" "	525.00

233	Nov. 17, 1884	Benjamin S. Wright	8 & 9	22	B. S. Wright's	1,456.45
			20, 21 & 22	13	"	
			"	4 & 5	"	
234	"	Louis Kampff	"	"	"	20.00
227	Jan. 26, 1888	Frank H. Castner	10	22	"	50.13
228	May 18, 1886	L. F. Motley, et al	11	22	"	50.00
230	July 12, 1884	John Woods, et al	12 & 13	22	"	100.00
232	Oct. 17, 1884	Kate Tobin and husband	14	22	"	50.00
235	Nov. 17, 1884	Louis Kampff, et ux	"	14 & 21	"	1,100.00
236	Aug. 7, 1884	Clarence F. Whipple, et al	14 to 19	13	"	300.00
162	May 14, 1884	Alvina H. Gross, et al	23 to 26	13	"	200.00
		Total consideration				$4,335.58

Summary

Total money paid on Ramsey St. Line	$16,306.66
" " " " First St. Line	28,858.67
" " " " Main St. Line	4,335.58
" " " " Mulberry St. Line	150.00
Grand total	$49,650.91

COMPLAINANT'S EXHIBIT 79. ELLIOTT.

NORTHERN PACIFIC RAILWAY COMPANY.

LINES IN MINNESOTA.

Statement of operating expenses divided as between passenger and freight business year ending June 30th, 1908.

	Freight	Passenger	Total
MAINTENANCE OF WAY AND STRUCTURES:			
Superintendence	$37,740.19	$31,851.67	$69,591.86
Ballast	4,421.57	3,239.75	7,662.32
Ties	172,551.92	162,651.76	335,203.68
Rails	47,423.60	34,657.99	82,081.59
Other track material	59,301.43	42,614.02	101,915.45
Roadway and track	295,919.36	242,939.66	538,859.02
Removal of snow, sand and ice	8,271.34	8,011.44	16,282.78
Tunnels	1.48	1.27	2.75
Bridges, trestles and culverts	21,854.80	19,842.72	41,697.52
Over and under grade crossings	1,669.07	1,363.51	3,032.58
Grade crossings, fences, C. G. & S.	11,426.77	9,893.67	21,320.44
Snow and sand fences and snowsheds	3,003.87	2,192.33	5,196.20
Signals and interlocking plants	6,171.46	4,827.07	10,998.53
Telegraph and telephone lines	7,070.62	4,946.80	12,017.42
Buildings, fixtures and grounds	88,792.40	59,382.36	148,174.76
Docks and wharves	18,852.07		18,852.07
Roadway tools and supplies	5,996.61	4,966.02	10,964.63
Work Equipment—Repairs	29,680.04	24,379.93	54,059.97
" " Renewals	85.70	67.79	153.49
" " Depreciation	5,248.46	4,635.46	9,883.92
Injuries to persons	2,917.47	2,566.34	5,483.81
Stationery and printing	830.19	662.32	1,492.51
Insurance	5,297.48	4,159.82	9,457.30
Other expenses	309.77	366.64	676.41
Maintainance Jt. trks. yds. and O. F., Dr.	18,899.51	33,167.45	52,066.96
Maintenance Jt. trks. yds. and O. F., Cr.	54,417.09	53,007.88	107,424.97
Total	$799,320.09	$650,372.91	$1,449,693.00
MAINTENANCE OF EQUIPMENT:			
Superintendence	$20,975.01	$19,741.84	$40,716.85
Steam locomotives—Repairs	268,679.26	127,859.75	396,539.01
" " Depreciation	85,302.00	81,020.26	167,322.26
Passenger train cars—repairs		94,328.59	94,328.59
" " " renewals		1,212.45	1,212.45
" " " depreciation		59,756.75	59,756.75
Freight train cars—repairs	513,012.85		513,012.85
" " " renewals	14,932.97		14,932.97
" " " depreciation	341,657.43		341,657.43
Shop machinery and tools	16,210.42	13,572.77	29,783.19
Injuries to persons	875.01	878.71	1,753.72
Stationery and printing	892.39	775.25	1,667.64
Insurance	13,845.11	4,025.67	17,870.78
Other expenses	13,010.47	9,946.25	22,956.72
Maintenance Jt. equipment at terminals, Dr.	10,397.57	917.64	11,315.21
Equipment borrowed, Dr.	64,090.23	50.77	64,141.00
Maintenance Jt. equipment at terminals, Cr.	7,647.29	247.51	7,894.80
Equipment loaned, Cr.	69,990.07	777.77	70,767.84
Total	$1,257,377.42	$410,636.52	$1,668,013.94

Red ink figures denote "Credits."

	Freight	Passenger	Total
Transportation Expenses:			
Superintendence	$21,933,385	$10,732,837	$32,666,222
Outside agencies	35,689,704	30,008,586	65,698,290
Advertising	118,222	2,916,164	3,034,386
Traffic associations	3,118,181	396,231	3,514,412
Industrial and immigration bureau	3,294,481	3,356,786	6,651,267
Stationery and printing	5,718,157	3,740,110	9,458,267
Insurance	981,989	110,585	1,092,574
Other expenses	584	1,167,322	1,167,906
Total	$69,994,657	$56,224,621	$126,219,278
Maintenance of Way Expenses:			
Superintendence	$23,394,291	$2,347,840,531	$2,371,233,721
Dispatching trains	36,057,791	3,141,988,539	3,178,046,329
Station employees	475,744,113	12,541,603,253	13,017,347,366
Weighing and car service scales	1,677,237,698		1,677,237,698
Station supplies and expenses	22,502,810	113,324,231	135,827,041
Yardmasters and their clerks	64,257,165	27,721,903	91,979,068
Yard conductors and brakemen	267,449,668	119,908,239	387,357,907
" switch and signal tenders	19,398,846	11,282,986	30,681,832
" supplies and expenses	10,044,331	1,577,291	11,621,622
" engine men	137,444,985	93,589,037	231,034,022
" engine men	43,941,228	21,019,657	64,960,885
Engine house expenses, yard	258,573,980	185,326,107	443,900,087
Fuel for yard locomotives	5,800,187	5,225,857	11,026,044
Water for yard locomotives	2,764,691	1,199,239	3,963,930
Lubricants for yard locomotives	2,207,586	1,200,165	3,407,751
Other supplies for yard locomotives	1,809,703,582	586,739,322	2,396,442,904
Operating D. yds. and terminals Dr.	102,429,256	8,596,734	111,025,990
Operating D. yds. and terminals Cr.	236,572,144	1,441,441,189	1,678,013,333
Fuel, engine men	65,586,222	42,450,836	108,037,058
Engine house expenses, road	628,173,736	272,809,581	900,983,317
Fuel for road locomotives	22,567,236	18,402,772	40,970,008
Water for road locomotives	4,583,256	4,501,401	9,084,657
Lubricants for road locomotives	7,302,065	2,580,672	9,882,737
Other supplies for road locomotives	385,782,201	143,698,259	529,480,460
Road trackmen	99,600,338	73,754,661	173,354,999
Train supplies and expenses	31,316,723	11,139,044	42,455,767
Switchmen, flagmen and watchmen	85,881,587	90,096,113	175,977,700
Crossing flagmen and gatemen	24,044,156	11,962,467	36,006,623
Drawbridge operators	10,018,340	8,422,468	18,440,808
Clearing wrecks	14,586,733	12,258,258,665	12,272,845,398
Telegraph and telephone operators	12,453,189	7,636,247	20,089,436
Stationery and printing	7,284,356	6,672,986	13,957,342
Insurance	4,062,486	4,493,726	8,556,212
Other expenses	198,986,981		198,986,981
Loss and Damage, freight		11,377,598	11,377,598
" " Baggage		4,146,833	4,146,833
Damage to property	8,777,333	25,963,844	34,741,177
" stock on right of way	2,917,482	2,937,773	5,855,255
Injuries to persons	102,942,594	42,046,776	144,989,370
Operating joint tracks—Dr.	5,389,468	1,166,255,723	1,171,645,191
" " " Cr.	14,028,627	19,656,683	33,685,310
Total	$6,118,373,180	$21,699,286,646	$27,817,659,826
General Expenses:			
Salaries and expenses of general officers	$15,196,188	$10,581,382	$25,777,570

Book rule figures denote "Credits."

COMPLAINANT'S EXHIBIT 79. ELLIOTT.—*Cont.*

	Freight	Passenger	Total
GENERAL EXPENSES:—*Cont.*			
Salaries and expenses clerks and attendants	$47,874.20	$29,596.13	$77,470.33
General office supplies and expenses	2,930.52	2,443.22	5,373.74
Law expenses	17,057.95	14,452.14	31,510.09
Insurance	7.15	6.58	13.73
Stationery and printing	5,201.50	3,110.02	8,311.52
Other expenses	8,575.27	7,519.45	16,094.72
Genl. adminst. Jt. T. Y. & T. Dr.	2,031.78	1,110.29	3,142.07
Genl. adminst. Jt. T. Y. & T. Cr.	.37	.40	.77
Total	$98,844.18	$71,829.25	$170,673.43
SUMMARY:			
Maintenance of way and structures	$799,320.09	$650,372.91	$1,449,693.00
" " equipment	1,257,377.42	410,636.52	1,668,013.94
Traffic expenses	69,804.67	89,524.61	159,329.28
Transportation expenses	3,118,371.89	1,089,268.66	4,207,640.55
General expenses	98,844.18	71,829.25	170,673.43
Total operating expenses	$5,343,718.25	$2,311,631.95	$7,655,350.20

April 27, 1909.

Red ink figures denote "Credits."

COMPLAINANT'S EXHIBIT 80. ELLIOTT.

NORTHERN PACIFIC RAILWAY COMPANY

Statistics for Business Year ending June 30, 1908

Mileage in System

	Miles	Miles	Miles
Main track—First		5,981.77	
" " Second	253.10		
" " Other	1.58	254.68	
Total main track owned			6,236.45
Siding, spurs and yard tracks owned			2,062.80
Leased tracks			59.98
Trackage			68.74
Total tracks in system			8,427.97

Mileage in State of Minnesota

Main track—First	992.07
" " Second and additional tracks	206.45
Side tracks	612.24
Total tracks in Minnesota	1,810.76

Equipment on System

Locomotives	1,314
Passenger train cars	923
Freight and work cars	45,138

Average Capacity of Equipment

Box cars, average capacity per car	34 tons
Refrigerators, " " "	25 "
Stock cars, " " "	24 "
Flat cars, " " "	33 "
Coal cars, " " "	40 "
Tank cars, " " "	28 "
Other cars, " " "	40 "
Average capacity—all classes	34 "

Traffic on System

Freight

Tons revenue freight carried	15,836,823
Tons revenue freight carried one mile	5,156,378,369
Freight revenue	$46,423,836.33
Tons revenue freight per train mile	430.87
Tons revenue freight per loaded car mile	18.86

Passenger

Passengers carried	7,880,333
Passengers carried one mile	704,351,948
Passenger revenue	$18,133,238.52
Average distance carried—miles	100.8

COMPLAINANT'S EXHIBIT 80. ELLIOTT.—*Cont.*

TRAFFIC IN STATE OF MINNESOTA

Freight

All Divisions in Minnesota

	Local	Interstate Touching Minnesota	Total
Tons carried	1,249,286	5,169,104	6,418,390
Tons, one mile in Minnesota	130,580,988	960,709,494	1,091,290,482
Average haul—miles:			
Entire distance	104.52	485.3	
In Minnesota	104.52	185.86	170.03
Revenue allotted in Minnesota	$1,555,342.92	$7,953,734.41	$9,509,077.33
Revenue per ton in Minnesota	$1.245	$1.5387	$1.4815
Revenue per ton mile in Minnesota	1.1910c	0.8279c	0.8714c
Relation of revenue per ton per mile from local traffic to interstate traffic.	1.44	to 1	
Average total haul of all interstate Traffic touching Minnesota	485.3 miles		

Passenger

Gross Earnings

Passenger, local to state	$1,015,150.34
Passenger, interstate touching Minnesota	1,940,718.17
Passengers carried, local	1,481,282
Passengers carried, interstate	682,065
Passengers carried one mile, local	52,317,140
Passengers carried one mile, interstate	100,930,180
Average haul of passengers within the State of Minnesota:	Miles
Local	35.3
Interstate	148.0

NOTE: The average total haul in all states of passengers touching Minnesota, has not been computed.

OPERATING EXPENSES

System

Total gross operating revenue on system	$68,235,484.17
Total operating expenses on system	39,865,033.30
Net operating revenue	$28,370,450.87

State

Total gross operating revenue	$13,336,046.87
Total operating expenses	7,655,350.20
Total net operating revenue	$5,680,696.67
Of the total operating expense within the State, there has been allocated to—	
Freight	$5,343,718.25
Passenger	2,311,631.95

The amounts allocated respectively to freight and passenger, have been subdivided as follows:

Freight

Station and yard service	$1,368,789.47
Engine service	964,816.49
Train service	346,433.59
Other transportation service	438,332.34
Total transportation service	$3,118,371.89

Freight—Cont.

Maintenance of way and structures	$799,320.09
Maintenance of equipment	1,257,377.42
Traffic expenses	69,804.67
General expenses	98,844.18
Total, other than transportation	2,225,346.36
Total operating expenses	$5,343,718.25

Passenger

Station and yard service	$239,767.37
Engine service	482,822.29
Train service	217,332.89
Other transportation service	149,346.11
Total transportation service	$1,089,268.66
Maintenance of way and structures	650,372.91
Maintenance of equipment	410,636.52
Traffic expenses	89,524.61
General expenses	71,829.25
Total, other than transportation	$1,222,363.29
Total operating expenses	$2,311,631.95

NOTE. It is estimated that of the interstate freight touching the state of Minnesota, from 10 to 12 per cent of the ton miles made within the state are made by freight passing entirely across the state without receiving any terminal service within it, nor any yard service within it, except what is involved in breaking and making up trains in divisional yards.

Two thirds of total main track mileage in Minnesota is operated as main line and the remainder as branch line.

COMPLAINANT'S EXHIBIT 80-A. ELLIOTT.

NORTHERN PACIFIC RAILWAY COMPANY

INCOME IN STATE OF MINNESOTA

Fiscal Year Ending June 30th, 1908.

Operating revenue	$13,336,046.87	
Operating expenses	7,655,350.20	
Net operating revenue		$5,680,696.67
Proportion of outside operations:		
Sleeping cars	$60,403.54	
Parlor and chair cars	14,199.37	
Dining and special cars	6,646.59	
Hotels and restaurants	6,490.25	
		$87,739.75
Rents from tracks, yards and other property in Minnesota:		
Tracks, yards and terminals	$242,414.33	
Miscl. St. Louis River Bridge etc.	25,234.66	
Taxes collected from lessees	8,726.61	
Minnesota Transfer stock yards	907.50	
Rent of track material	14.16	
		277,297.26
Proportion of hire of equipment		18,173.10
		$6,063,906.78
Less:		
Rental paid for tracks, yards and other property in Minnesota	$80,928.20	
Taxes paid in Minnesota	596,118.51	
		677,046.71
Minnesota Income		$5,386,860.07

COMPLAINANT'S EXHIBIT 80-B. ELLIOTT.

NORTHERN PACIFIC RAILWAY COMPANY

INCOME IN STATE OF MINNESOTA

Fiscal Year ending June 30th, 1908

Operating revenue	$13,336,046.87	
Operating expenses	7,655,350.20	
Net operating revenue		$5,680,696.67
Proportion of outside operations:		
Sleeping cars	$60,403.54	
Parlor and chair cars	14,199.37	
Dining and special cars	6,646.59	
Hotels and restaurants	6,490.25	
		87,739.75
Rents from tracks, yards and other property in Minnesota:		
Tracks, yards and terminals	$242,414.33	
Miscellaneous, St. Louis River Bridge etc.	25,234.66	
Taxes collected from lessees	8,726.61	
Minnesota Transfer stock yards	907.50	
Rent of track material	14.16	
Duluth union depot, rentals	23,866.24	
		301,163.50
Proportion of hire of equipment		18,173.10
		$6,087,773.02
Less:		
Rentals paid for tracks, yards and other property in Minnesota	$60,139.95	
Taxes paid in Minnesota	596,118.51	
		656,258.46
Minnesota income		$5,431,514.56

St. Paul, Minn., May 8th, 1909.

COMPLAINANT'S EXHIBIT 81. DARLING.

NORTHERN PACIFIC RAILWAY.

COST OF GRADING LINES IN MINNESOTA.

Work Done by Contract.

Year Built	Line	Mileage	Earth		Loose Rock		Solid Rock		Total Yardage	Average Contract Price	Total Charges	Average Cost per Yard
			Cubic Yards	Ave. Price	Cubic Yards	Ave. Price	Cubic Yards	Ave. Price				
1902	Bemidji to Blackduck	25.745	798,832	0.255	58,025	0.45	.....	.....	856,857	0.268	$282,264.47	0.329
1903	Blackduck to Bridgie	16.248	281,738	0.34	322	0.50	200	1.50	282,260	0.341	109,234.92	0.387
1905	Bridgie to Big Fork	31.062	355,541	0.245	154	0.364	.....	.....	355,695	0.245	131,070.51	0.368
1907	Wadena to Jct. Lake Park	57.26	1,259,910	0.2286	80	0.38	.....	.....	1,259,990	0.228	376,678.80	0.298
1908	Lake Park to Glyndon	53.66	1,113,804	0.229	272,410	0.404	700	0.936	1,386,914	0.2637	564,057.11	0.407
	Totals	.....	3,809,825	0.244	330,991	0.412	900	1.06	4,141,716	0.258	$1,463,305.81	0.353

Work Done by Company Force.

	Earth	Cost	Average Price per cu. yd.
Bridgie to Big Fork	64,008	$20,501.29	32.0c
Wadena Jct. to Lake Park	512,335	325,793.79	63.5c
Lake Park to Glyndon	4,975,895	1,472,044.00	29.6c
Totals	5,552,238	$1,818,339.08	32.75c

COMPLAINANT'S EXHIBIT 82. DARLING.

Grading done during years 1879 to 1907, showing unit prices and amounts paid contractors, not including Extra Bills and Force Account work.

State	Mileage	Grading—Classified Quantities									Grading—Total Quantities		
		Earth			Loose Rock			Solid Rock					
		Cubic Yards	Contract Cost	Av. cont. cost yd.	Cubic Yards	Contract Cost	Av. cont. cost yd.	Cubic Yards	Contract Cost	Av. cont. cost yd.	Quantities cu. yds.	Contract Cost	Av. Cost
Wiscon'n	78.64	1,482,160	$367,487.48	.247	922	$932.57	1.011	5,206	$7,993.05	1.535	1,488,289	$376,413.10	.253
Minnes'ta	236.845	4,162,122	927,952.01	.223	76,800	33,784.48	.440	19,376	17,479.40	.902	4,258,299	979,215.89	.230
N. Dakota	805.994	12,295,021	2,076,359.76	.169	500,635	201,761.33	.403	76,817	68,510.70	.893	12,872,474	2,346,631.79	.182
Montana	1091.066	11,076,046	2,594,867.88	.234	1,926,519	999,684.58	.514	2,626,364	2,984,772.53	1.098	15,628,929	6,579,324.99	.421
Idaho....	238.784	2,557,669	470,326.26	.184	2,071,705	779,253.76	.376	2,205,665	1,969,775.84	.893	6,835,039	3,219,855.86	.471
Wash'ton	735.619	12,741,814	2,603,080.81	.204	3,985,174	1,651,822.62	.415	1,455,703	1,487,014.40	1.022	18,183,692	5,741,917.83	.316
Oregon...	38.55	677,341	118,534.67	.175	30,194	24,155.20	.80	57,991	81,187.40	1.40	765,526	223,877.27	.293
Totals....	3223.498	44,992,173	9,158,608.87	.203	8,591,949	3,691,394.54	.430	6,447,122	6,616,733.32	1.026	60,032,248	19,467,236.73	.324

COMPLAINANT'S EXHIBIT 83. DARLING.

Statement of Actual Cost of Ballasting done by Northern Pacific Railway Company during Years 1906, 1907 and 1908.

BALLASTING: COST PER CUBIC YARD.

	Number Miles	Cubic Yards	Maintenance	Repairs, Renewals and Depreciation of Equipment	Train Service and Transportation	Paid Contractors	Total
Kennewick-Vancouver	255.30	897,731	3.6c	18.4c	30. c	34.70c	86.70c
White Pine Hill	32.89	124,683	3.6	9.87	20.12	30.87	64.46
St. Regis-Paradise	24.99	78,986	3.6	12.58	20.25	37.93	74.36
North Dakota	31.02	108,675	3.6	11.25	36.75	36.00	87.60
Minnesota	62.62	198,257	3.6	13.25	25.50	41.25	83.60
B. F. & I. F.	37.00	140,000	3.6	8.98	15.29	33.84	61.71
	444.32	1,548,332	3.6c	15.43c	27.27c	35.39c	81.69c

COMPLAINANT'S EXHIBIT 84. DARLING.

Statement of actual cost of Tracklaying done by Northern Pacific Railway Company during years 1906, 1907 and 1908.

TRACKLAYING—COST PER MILE.

	Number Miles	Repairs Renewals and Depreciation of Equipment	Train service & transportation	Paid Contractors	Total
Kennewick-Vancouver	255.80	$283.10	$402.79	$583.66	$1,269.55
White Pine Hill	32.89	49.19	360.05	714.09	1,123.33
St. Regis Paradise	24.99	107.05	431.98	658.97	1,198.00
North Dakota	31.02	120.50	245.43	392.15	758.08
Minnesota	62.62	120.50	245.43	392.15	758.08
B. F. & I. F.	37.00	60.77	399.63	400.06	860.46
	444.32	$203.09	$367.84	$541.95	$1,112.88

COMPLAINANT'S EXHIBIT 85. DARLING.

NORTHERN PACIFIC RAILWAY.

Cost of reproduction of lines in Minnesota as of April 30th, 1908.

Mileage exclusive of Minnesota and International Railway and Big Fork and International Falls Railway.

Main track, main line	584.07	miles
Main track, branches	395.55	"
Second and third track	133.17	"
Spurs	63.23	"
Yard tracks and sidings	449.18	"
Total	1,625.20	miles

1.	Land for right of way, yards and terminals	$24,049,661.94
2.	Grading, clearing and grubbing	12,331,541.52
3.	Protection work, rip rap and retaining walls	374,091.53
4.	Tunnels	358,363.00
5.	Cross ties and switch ties	3,657,576.70
6.	Ballast	2,084,258.49
7.	Rails	5,645,307.43
8.	Track fastenings	727,228.37
9.	Switches, frogs and railroad crossings	303,717.33
10.	Tracklaying and surfacing	1,600,591.56
11.	Bridges, trestles and culverts	3,884,745.72
12.	Track and bridge tools	28,073.06
13.	Fences, cattle guards and signs	471,609.51
14.	Stock yards and appurtenances	37,098.34
15.	Water stations	436,489.02
16.	Coal stations	120,039.56
17.	Station buildings and fixtures	920,423.88
18.	Miscellaneous buildings	1,054,874.83
19.	Steam and electric power plants and gas plants	196,338.84
20.	General repair shops	1,162,934.58
21.	Shop machinery and tools	529,322.33
22.	Engine houses, turntables and cinder pits	1,026,346.70
23.	Track scales	38,520.00
24.	Dock and wharves (include coal and ore docks)	768,306.35
25.	Interlocking plants and other signal apparatus	114,430.58
26.	Telegraph and telephone lines	285,145.29
27.	General office, furniture and supplies	73,654.41
28.	Transportation charges to lines under construction and miscellaneous charges	312,722.27
29.	Locomotives	3,454,040.42
30.	Passenger equipment	1,349,827.87
31.	Freight car equipment	7,519,722.99
32.	Miscellaneous equipment	372,477.40
	Engineering	2,134,454.55

Contingencies to provide for Legal Expenses, Superintendence, Organization, unenumerated items, floods, personal injuries and other unforseen conditions that might arise during the progress of the work	$6,985,585.80
Interest during construction	7,768,868.17
Stores and supplies in Minnesota	$92,178,390.34
St. Paul Union Depot, 1/9 interest	2,658,976.01
Duluth Union Depot, including right of way	610,572.00
Minnesota Transfer Railway, 1/10 interest	1,016,170.25
Big Fork and International Falls Ry	575,600.00
Minnesota and International Ry., 70% interest	656,034.91
	3,460,839.62
Total	$101,158,583.13

Mileage of Northern Pacific Railway Company in the State of Minnesota as of April 30th, 1908, exclusive of Minnesota and International Railway and the Big Fork and International Falls Railway.

DESCRIPTION	MAIN TRACK				
	Main Line	Branches	2nd Trk.	Spurs	Yard Trks. &Sdgs.
	Miles	Miles	Miles	Miles	Miles
Wisconsin-Minnesota State Line to Minnesota-North Dakota State Line	237.00	.....	84.23	8.64	135.50
Rice's Point to Minn.-Wis. State Line (center of St. Louis Bay Bridge)	1.64	.....	1.33	1.49	51.02
Walbridge Line	0.09	.....	.....	.....	.....
Lake Park to Hawley	12.83	.....	12.83	.....	.....
St. Paul to Staples	139.77	.....	10.44	21.91	96.90
Little Falls to Brainerd	32.91	.....	.....	.....	4.46
Duluth Short Line	152.06	.....	16.87	16.10	88.54
Line "A," Gen. Office Bldg. to Mississippi Street, St. Paul	1.53	.....	1.53	.....	.....
Line "A," St. Anthony Park to 20th Avenue So., Minneapolis	2.57	.....	2.57	.....	.....
Line from Terminal Yard, Mpls. to Northtown Junction, Minneapolis	3.42	.....	3.37	.....	.....
Duluth Union Depot Company	0.25	.....	.....	.....	2.33
Minneapolis-White Bear Branch	.....	13.11	.....	0.87	7.96
Fond du Lac Branch	.....	12.20	.....	2.04	2.48
West Superior Branch	.....	2.01	.....	2.98	2.57
Cloquet Branch	.....	6.95	.....	2.32	3.58
Grantsburg Branch	.....	5.08	.....	.....	2.20
Miller Branch	.....	4.27	.....	1.25	1.24
Taylor's Falls Branch	.....	20.52	.....	0.18	2.47
Stillwater Branch	.....	12.74	.....	1.90	4.73
Little Falls and Dakota Branch	.....	87.90	.....	0.55	9.14
Fergus Falls Branch	.....	74.97	.....	0.36	7.40
Red River and Winnipeg Branch	.....	95.45	.....	1.60	22.49
Red Lake Falls Branch	.....	54.34	.....	1.04	3.31
Keystone Branch	.....	6.01	.....	.....	0.86
	584.07	395.55	133.17	63.23	449.18

LAND FOR RIGHT OF WAY, YARDS AND TERMINALS

Estimate of December 31, 1906	$23,548,393.41
Expenditures from December 31, 1906, to April 30, 1908	501,268.53
	$24,049,661.94

GRADING

Estimated cost as of December 31, 1906:	
Earth, 27,140,617 cu. yds. @ $0.33	$8,956,403.61
Solid Rock, 182,380 cu. yds. @ $1.25	227,975.00
Corduroy, 6,032,200 lin. ft. @ $0.08	482,576.00
285,040 F. B. M. timber left in sink-hole bridges @ $38.20 M.	10,888.53
43,500 lbs. iron left in sink-hole bridges @ $0.03	1,305.00
87,760 lin. ft. piling left in sink hole bridges @ $0.45	39,492.00
Clearing and Grubbing	441,171.00
	$10,159,811.14
Expenditures from December 31, 1906, to April 30, 1908	2,171,730.38
Total	$12,331,541.52

PROTECTION WORK, RIP RAP AND RETAINING WALLS

Estimated cost as of April 30, 1908	$374,091.53

TUNNELS

Double track tunnels at St. Paul.	
Estimated cost as of April 30th, 1908	$358,363.00

CROSS TIES AND SWITCH TIES

Estimate of December 31st, 1906:	
Track ties:	
Oak 1,229,104 pcs. @ 75c	$921,828.00
Cedar 263,195 pcs. @ 65c	171,076.75
Tamarack 2,595,113 pcs. @ 60c	1,557,067.80
Pine 1,924 pcs. @ 40c	769.60
Freight on above ties	613,253.86
	$3,263,996.01
Switch ties:	
Oak 1904 sets @ average price $85.99	$163,723.82
Fir 1,129 sets @ average price $79.38	89,620.02
Elm 64 sets @ average price $68.90	4,409.60
Freight on fir ties only	636.10
	$258,389.54
Total for ties:	
Track ties	$3,263,996.01
Switch ties	258,389.54
	$3,522,385.55
Expenditures December 31st, 1906, to April 30th, 1908	135,191.15
Total	$3,657,576.70

BALLAST

Estimate of December 31st, 1906:		
Main line, second and third track ballasted with 3,200 cu. yds. per mile, 718.53 miles	2,299,299	cu. yd
Main line, branch lines, sidings and yard tracks ballasted with 1,800 cu. yds. per mile, $371.09	667,966	"
Total	2,967,265	"
2,967,265 cu. yds. @ 66c	$1,958,395.00	
Expenditures December 31st, 1906, to April 30th, 1908	125,863.49	
	$2,084,258.49	

RAILS

Estimate of December 31st, 1906:		
158,005.572 tons @ $29.75 per ton		$4,700,665.76
Freight at tariff rates from Duluth or St. Paul to central point of each section of line		416,007.97
		$5,116,673.73
Expenditures from December 31st, 1906, to April 30th, 1908		528,633.70
		$5,645,307.43

TRACK FASTENINGS

Estimated cost as of December 31st, 1906:	
Angle bars and fish plates 8,915 tons @ $35.70 per ton	$318,265.50
Bolts and nuts 1,003 tons @ $59.75 per ton	59,929.25
Spikes 4,829 tons @ $44.90 per ton	216,822.10
Tie plates 4,175 tons @ $47.24 per ton	19,722.70
Rail braces, nut locks, etc.	13,102.87
	$627,842.42
Expenditures December 31st, 1906 to April 30th, 1908	99,385.95
Total	$727,228.37

SWITCHES, FROGS AND RAILROAD CROSSINGS

Average price per set including switchstand, connecting rod, lamp, lock, switch points, tie rods, plates, braces, frogs, guard rails and freight charges, $82.72.

3,066 complete sets except ties @ $82.72	$253,619.52
31 complete crossings, except ties @ $386.85	11,992.35
Estimated cost of December 31st, 1906	$265,611.87
Expenditures from December 31st, 1906, to April 30th, 1908	38,105.46
Total	$303,717.33

TRACKLAYING AND SURFACING

Estimate of December 31st, 1906:	
Track ballasted 1,089.620 miles @ $760	$828,111.20
Track unballasted 439.476 miles @ $1,050	461,449.80
Additional cost of laying switches and crossings and cost of transportation	8,167.08
	$1,297,728.08
Expenditures December 31st, 1906, to April 30th, 1908	302,863.48
Total	$1,600,591.56

BRIDGES, TRESTLES AND CULVERTS

Steel bridges 17,434 lineal feet	$2,002,066.00
Wooden bridges 29,581 lineal feet	416,992.00
Culverts	1,055,029.00
Total as of December 31st, 1906	$3,474,087.00
Expenditures December 31st, 1906, to April 30th, 1908	410,658.72
Total	$3,884,745.72

TRACK AND BRIDGE TOOLS

Estimated cost of December 31st, 1906	$27,796.50
Expenditures December 31st, 1906, to April 30th, 1908	276.56
Total	$28,073.06

FENCES, CATTLE GUARDS AND SIGNS

Estimate of December 31st, 1906:	
Average cost per mile of the various kinds of right of way fence	$213.50
Average cost per mile of snow fence	1,306.00
Average cost per piece of the various kinds of cattle guards	17.45
1,259.53 miles of right of way fence @ $213.50	268,909.66
93.14 miles snow fence @ $1,306.00	121,640.84
1,188 cattle guards @ $17.45	20,730.60
Plank highway crossings	28,940.94
Signs	10,170.59
	$450,392.63
Expenditures December 31st, 1906, to April 30th, 1908	21,216.88
Total	$471,609.51

STOCK YARDS AND APPURTENANCES

Estimate of cost of December 31st, 1906	$36,952.65
Expenditures December 31st, 1906, to April 30th, 1908	145.69
Total	$37,098.34

WATER STATIONS

Estimate of December 31st, 1906:	
60 water stations, including tanks, pumphouses, pumps, engines, standpipes, wells, reservoirs, etc., and transportation	$289,490.02
Expenditures December 31st, 1906, to April 30th, 1908	146,999.00
Total	$436,489.02

COAL STATIONS

Estimate of December 31st, 1906:	
12 coaling stations of the Link-Belt type, 1 coaling station with inclined trestle approach, 5 platforms, estimated cost	$108,314.00
Expenditures December 31st, 1906 to April 30th, 1908	11,725.56
Total	$120,039.56

STATIONS, BUILDINGS AND FIXTURES

Estimate of December 31st, 1906:		
Passenger Stations, Brick or Stone:		
Stillwater	$46,000.00	
Little Falls	18,200.00	
Sauk Rapids	6,950.00	
Moorhead	7,100.00	$78,270.00
Frame Passenger Depots		427,900.00

Freight Depots, Brick:		
St. Paul	$75,780.00	
Minneapolis	63,460.00	
Stillwater	12,760.00	
Duluth	74,000.00	
Brainerd	17,200.00	
Moorhead	8,600.00	$251,800.00
Frame Freight Houses		81,442.60
		$839,412.60
Expenditures from December 31st, 1906 to April 30th, 1908		81,011.28
		$920,423.88

MISCELLANEOUS BUILDINGS

Section houses, bunkhouses, tool house, watchman's houses, yard offices, small repair shops, hospital buildings at Brainerd, General Office building St. Paul, Record building, St. Paul; Chemist's office, etc.

Estimate of cost of December 31st, 1906	$971,168.75
Additional expenditures December 31st, 1906 to April 30, 1908	83,706.08
Total	$1,054,374.83

STEAM AND ELECTRIC POWER PLANTS AND GAS PLANTS

Include electric and power plant machinery at St. Paul, Como Shops, Minneapolis, Staples, East Grand Forks, Brainerd Shops, Duluth and hoisting engines for Link-Belt Coal Docks.

Estimated cost as of April 30th, 1908	$196,338.64

GENERAL REPAIR SHOPS

Include shop buildings at Brainerd, Como, Staples, Gladstone and machine shops and appurtenant buildings at Duluth, Minneapolis and St. Paul round-houses, but not including round-houses.

Estimated cost as of December 31st, 1906	$1,142,512.00
Expenditures from December 31st, 1906, to April 30th, 1908	20,422.58
	$1,162,934.58

SHOP MACHINERY AND TOOLS

Estimated cost as of December 31st, 1906	$436,542.72
Expenditures December 31st, 1906, to April 30th, 1908	92,779.61
Total	$529,322.33

ENGINE HOUSES, TURNTABLES AND CINDER PITS

Brick Roundhouses:			
Duluth	36	stalls,	
Hinckley	4	"	
Brainerd	44	"	
White Bear	6	"	
Gladstone	25	"	
St. Paul	16	"	
Como	2	"	
Minneapolis	19	"	
Claymont	15	"	
Staples	51	"	
East Grand Forks	18	"	
Total	236	stalls, estimated cost	$407,783.92
Average cost per stall			$2,109

Brought forward		$497,783.92
Frame Roundhouses:		
Carlton	4 stalls	
Taylor's Falls	1 "	
Morris	2 "	
Detroit	2 "	
Winnipeg Jct.	4 "	
	13 stalls	$15,969.02
Average cost per stall	$1 228	

TURNTABLES

At Duluth, Hinckley, Taylor's Falls, Brainerd, Gladstone, White Bear, St. Paul, Minneapolis, Fergus Falls, Staples (2), Detroit and East Grand Forks. 13 turntables, estimated cost	$63,796.62
Average cost per table	$4,907

CINDER PITS

Ten cinder pits, estimated cost	$25,802.56
Estimated cost of December 31st, 1906	603,412.12
Expenditures December 31st, 1906, to April 30th, 1906	422,934.58
	$1,026,346.70

TRACK SCALES

Estimate of April 30th, 1908:	
20 scales	$38,520.00
Average cost per scale	$1,926

DOCKS AND WHARVES

Includes Docks 1, 2, 3, 4, 5 and 6 Duluth and warehouses thereon; also coal dock and lumber docks.

Estimate of cost of December 31st, 1906	$778,634.00
Deduction December 31st, 1906, to April 30th, 1908	10,327.65
Total	$768,306.35

INTERLOCKING PLANTS AND OTHER SIGNAL APPARATUS

Estimated cost to reproduce as of December 31st, 1906	$107,950.00
Expenditures December 31st, 1906, to April 30th, 1908	6,480.58
Total	$114,430.58

TELEGRAPH AND TELEPHONE LINES

Estimated cost to reproduce as of December 31st, 1906	$264,049.02
Expenditures December 31st, 1906, to April 30th, 1908	21,096.27
Total	$285,145.29

ENGINEERING

3% of items of estimated cost as of December 31st, 1906, as follows:

Land for right of way, yard and terminals	$23,548,393.41

Grading, clearing and grubbing		$10,159,811.00
Protection work, rip rap, and retaining walls		374,091.53
Tunnels		358,363.00
Cross ties and switch ties		3,522,385.55
Ballast		1,958,395.00
Rails		5,116,673.73
Track fastenings		627,842.42
Switches, frogs and railroad crossings		265,611.80
Tracklaying and surfacing		1,297,727.08
Bridges, trestles and culverts		3,474,087.00
Track and bridge tools		27,796.50
Fences, cattle guards and signs		450,392.63
Stockyards and appurtenances		36,952.65
Water stations		289,490.02
Coal stations		108,314.00
Station buildings and fixtures		839,412.60
Miscellaneous buildings		971,168.75
Steam and electric power plants, gas plants		196,338.64
General repair shop		1,142,512.00
Shop machinery and tools		436,542.72
Engine houses, turntables and cinder pits		603,412.12
Track scales		38,520.00
Docks and wharves		778,634.00
Interlocking plants		64,500.00
Signal apparatus		43,450.00
Telegraph lines and appurtenances		261,004.82
Telephone lines and appurtenances		3,044.20
General office furniture and supplies		67,888.26
Locomotives		3,263,374.64
Passenger equipment		1,135,335.55
Freight car equipment		6,173,348.78
Miscellaneous equipment		186,407.00
		$67,821,221.40
3% of $67,821,221.40	$2,034,636.64	
And expenditures December 31st, 1906, to April 30th, 1908	99,817.91	
Total	$2,134,454.55	

CONTINGENCIES

Contingencies to provide for Legal Expenses, Superintendence, Organization, unenumerated items, floods, personal injuries and other unforseen conditions that might arise during the progress of the work—

10% of items of estimated cost of December 31st, 1906, as enumerated under head of engineering and 10% of the 3% of engineering.

	$67,821,221.40
10% of	2,034,636.64
	$69,855,858.04

$6,985,585.80

INTEREST DURING CONSTRUCTION

10% of items of estimated cost of December 31st, 1906, as enumerated under head of engineering, plus 10% of the 3% of engineering, plus 10% of the contingencies, plus ½ year's interest of expenditures December 31st, 1906 to April 30th, 1908.

10% of $67,821,221.40	$6,782,122.14
10% " 2,034,636.64	203,463.66
10% " 6,985,585.80	698,558.58
½ year's interest at 4% of $7,568,078.33	151,361.57
	$7,835,505.95
Less deduction account error in auditor's figures and duplication of construction charges	66,637.78
	$7,768,868.17

COMPLAINANT'S EXHIBIT 86. DARLING.

NORTHERN PACIFIC RAILWAY COMPANY.

Summary by sections of bridges, trestles and culverts in the State of Minnesota.

Section No.	Steel Superstructure	Howe Trusses	Substructure			Highway Bridges	Pile Bridges	Culverts	Cast Iron Pipe	Vitrified Pipe	Wooden Boxes	Total
			Masonry	Cribs	Piles							
1	$66,931	.....	$30,748	$23,978	$8,926	$130,661	$99,517	$14,324	$6,428	$237	$23,302	$405,052
2	53,249	.....	36,564	646	5,819	.....	17,984	179,489	113,633	2,597	9,556	419,537
3	5,978	.....	6,220	.....	540	.....	30,856	4,009	707	780	1,337	50,427
4	.....	.....	.....	.....	.....	.....	.....	.....	172	.....	.....	172
5	.....	.....	.....	.....	.....	.....	576	2,928	127	545	1,339	5,515
6	.....	.....	.....	.....	.....	.....	988	.....	.....	341	499	1,828
7	.....	$17,120	.....	1,070	2,165	.....	3,882	7,654	130	385	84	32,490
8	43,970	.....	3,122	622	288	.....	19,934	2,748	4,777	2,030	1,177	78,668
9	4,916	49	5,272	.....	.....	.....	.....	54,511	2,391	1,202	281	68,622
10	72,409	.....	62,554	.....	10,899	.....	17,445	54,156	26,804	10,087	593	254,947
11	1,550	.....	3,367	.....	.....	3,076	5,057	3,703	876	448	.....	18,077
12	408,090	.....	389,648	3,304	4,050	253,911	6,484	255,554	340	694	117	1,322,192
13	.....	.....	.....	.....	.....	876	8,407	868	.....	859	306	11,316
14	117,671	.....	97,894	.....	6,537	.....	5,510	43,412	17,786	2,011	672	291,493
15	3,443	.....	1,536	.....	1,136	.....	2,045	12,270	3,099	43	72	23,644
16	.....	.....	.....	.....	.....	.....	21,866	806	20,768	3,077	3,619	50,136
17 E	36,074	.....	20,534	.....	5,040	.....	7,278	44,343	25,405	11,807	1,373	233,544
17 W	35,721	.....	29,227	.....	6,678	.....	10,064					
18	.....	790	.....	142	255	1,503	12,370	5,363	12,248	5,169	343	38,183
19	2,152	18,203	6,924	8,403	7,338	3,068	32,622	.....	19,361	12,512	652	111,235
20	.....	7,293	3,596	4,693	1,350	.....	22,452	.....	6,708	3,528	2,918	52,538
21	.....	.....	.....	.....	.....	.....	2,315	.....	1,018	978	160	4,471
	$852,154	$43,455	$697,206	$42,858	$61,021	$393,095	$327,652	$686,138	$262,778	$59,330	$48,400	$3,474,087

COMPLAINANT'S EXHIBIT 86. DARLING.—*Cont.*

NORTHERN PACIFIC RAILWAY COMPANY.

COMPARATIVE STATEMENT

Showing estimated costs of the various items making up the total estimated costs of Northern Pacific bridges, trestles and culverts, in the State of Minnesota, and percentage each item bears to total difference between Northern Pacific estimate and estimate made by the State.

	Northern Pacific Estimate	State Estimate	Difference between Nor. Pac. and State Estimates	Percentage Difference bears to Total Difference
Superstructure	$852,154	$736,847	$115,307	12.9
Howe Trusses	43,455	52,300	8,845	—1.0
Substructure masonry	697,206	367,751	329,455	36.8
" cribs	42,858	39,474	3,384	.4
" piles	61,021	43,829	17,192	1.9
Highway bridges	393,095	382,148	10,947	1.1
Pile bridges	327,652	273,358	54,294	6.1
Culverts	686,138	424,219	261,919	29.2
Cast iron pipe	262,778	183,642	79,136	8.9
Vitrified pipe	59,330	30,580	28,750	3.2
Wooden boxes	48,400	43,867	4,533	.5
Totals	$3,474,087	$2,578,015	$896,072	100.0

COMPARATIVE STATEMENT

Showing unit prices and basis of same as used by the Northern Pacific Railway and the Minnesota Railway and Warehouse Commission in Estimating the Value of Northern Pacific Bridges, Trestles and Culverts in the State of Minnesota.

ITEM	N. P. Ry. Unit Price	State's Unit Price	Basis of N. P. Prices	Basis of State Prices
BRIDGES:				
Steel superstructure.				
I beams	3.3c per lb.	3c per lb.		Freight is included in the price per lb.
Plate girders	4.12c per lb.	3.5c per lb.	Falsework is included in the price per lb.	Deck and falsework are not included. Where bridges are assumed to require falsework same was put in at a rate of $10 per lineal foot of bridge, with the exception of the Lower Mississippi River bridge, $20 per lineal foot being used as falsework price for this structure. On above basis total cost of falsework amounts to 3/10 cents per pound of total superstructure cost.
Pin spans	4.67c per lb.	3.75c per lb.		
Draw spans	Truss price plus machinery	4.15c per lb.	Deck and freight are not included in the pound price, but are added as separate items for each bridge.	
Average price on total weight of all classes including everything complete in place	4.81c per lb.	4.16c per lb.		
HOWE TRUSSES:				
Cast Iron	2.55c per lb.	$40.00 per lineal foot of bridge.	Price for timber includes freight. Price for iron does not include freight. Both prices incl. labor of placing	Price includes everything complete in place.
Wrought Iron	3.25c per lb.			
Timber	$48 per M.			
SUBSTRUCTURE:				
1st class cut stone	All masonry and concrete $12 to $18 per cu. yd.	$12 per cu. yd.	Same basis as State prices.	Prices include all wet and dry excavation, labor, freight and all other items necessary for the substructure complete in place.
2nd class masonry		$8 to $9		
Concrete		$7.50 to $9		
Average price per cubic yard taking yardage into total cost of masonry	$16.77	$9.92		
Timber cribs	$38 per M.	$35 per M.		
Piling below cut-off	45c per foot	33c per foot		

ITEM	N. P. Ry. Unit Price	State's Unit Price	Basis of N. P. Prices	Basis of State Prices
HIGHWAY BRIDGES: Not checked	Difference between Northern Pacific estimate and State's estimate is $10,947, or 2.8%.			
PILE AND TIMBER TRESTLES: Average price per lineal foot for total of all bridges	$12.30	$10.50	Cost per lineal foot of pile bridge Height 10′ 15′ 20′ 25′ 30′ End span 15.58 17.62 18.20 20.40 24.38 Inter. span 10.00 11.04 11.62 12.80 15.00 2 end bents and 1 span 16′ 246.18 278.53 287.59 322.32 390.00	$10.50 per lineal foot of bridge, including all labor, material and freight.
MASONRY CULVERTS: Average price per cubic yard of masonry in arch proper if same is made to cover total cost of culverts	$16.04	$9.96	Cut stone in Twin Cities $15.00 " " outside " " 14.00 Concrete in " " 14.00 " outside " " 13.00 Rubble in " " 8.00 " outside " " 10.00 Paving in " " 4.50 " outside " " 5.00 Rip rap 2.00 Falsework for all culverts except those in Twin Cities, per lineal foot 12.30 Grillage in foundations 38.00 Piling in foundations, per lineal foot below cut-off .45 It is assumed that culverts in the Twin Cities did not require falsework in construction.	Arches under 6′ Rubble $6.50 Concrete 9.00 Paving 2.00 Rip rap 1.40 Arches over 6′ Cut stone $12.00 Rubble 6.50 Concrete 12.00 Paving 2.00 Rip rap 1.40 Grillage in foundations 35.00 Piling .33 Falsework included in yardage prices.

COMPLAINANT'S EXHIBIT 86. DARLING.—*Cont.*

ITEM	N. P. Ry. Unit Price	State's Unit Price	Basis of N. P. Prices	Basis of State Prices
CAST IRON PIPE:				
60"	$17.90	$17.50	Prices per foot are based on 1.7c per pound for material, plus freight to bridge site, plus team haul based on an average haul of 13.2 miles at 60c per ton mile, plus labor of laying; these items exclusive of material amounting to $1.00 per foot for 24" and under 1.50 " " " 30" 1.75 " " " 36" 2.50 " " " 40, 42 and 48" 3.50 " " " 54 and 60"	Prices per foot are at the rate of 1.75c per pound of material, this price being assumed to cover freight and labor of laying complete. The weights per lineal foot assumed by the State are approximately 36% in excess of those used by the N. P.
54"	14.70	14.00		
48"	11.97	11.63		
42"	9.57	8.97		
40"	9.09	7.87		
36"	6.93	6.77		
30"	6.01	5.07		
24"	3.89	3.51		
20"	3.49	2.98		
18"	3.39	2.62		
16"	3.16	2.46		
12"	2.33	1.75		

Division of items of team haul, freight and labor of laying as applied to 36" pipe is as follows:

Team haul $\frac{.60 \times 279 \times 13.2}{2,000}$ = $1.10

Freight $\frac{279 \times .13}{100}$ = .36

Labor of laying ..... .29

$1.75

Tile Pipe:				
36″	$4.10	$2.75	Prices per foot include cost of material plus freight to bridge site, plus team haul based on an average haul of 13.2 miles at 60c per ton mile, plus labor of laying.	Prices per foot include everything complete in place.
30″	3.40	2.10		
24″	2.43	1.25		
18″	1.66	.60		
16″	1.50	.40		
12″	1.40	.35		

Division of items of material, team haul, freight, and labor of laying as applied to 24″ pipe is as follows:

Material		$1.27
Team haul	$\frac{180 \times 13.2 \times .60}{2{,}000}$ =	.71
Freight	$\frac{180 \times .087}{100}$ =	.16
Labor		.29
		$2.43

Wooden Boxes:
Not rechecked. Difference between Northern Pacific and State estimate being $4,533, or 9.5%

NORTHERN PACIFIC RAILWAY COMPANY.

Estimated Cost of Bridges, Trestles, and Culverts, in the State of Minnesota.
Table showing average haul on culvert pipe, assuming pipe for each culvert shipped over foreign lines to junction point with Northern Pacific nearest the respective culvert sites.

Station of Shipping Point	Cast Iron Pipe		Tile Pipe	
	Weight in Tons	Ton Miles Hauled	Weight in Tons	Ton Miles Hauled
Duluth	139.47	301.3	44.16	247.3
Carlton	614.61	7,392 3	234.90	5,229.0
Hinckley	525.54	8,006.6	69.56	1,031.6
White Bear	203.40	1,745.3	109.48	1,031.1
St. Paul	2.16	4.3	10.80	21.6
Minneapolis	24.41	191.1	49.53	88.7
Taylor Falls	51.99	425.1	79.26	712.8
Brainerd	281.97	6,681.1	214.63	5,143.4
Elk River	10.40	31.4		
St. Cloud	128.07	3,259.4	46.35	1,193.0
Sauk Center	236.33	3,659.2	79.45	1,262.4
Glenwood	113.72	716.6	10.60	65.7
Morris	81.95	619.9	16.41	153.0
Henning	64.55	452.2	65.05	346.8
Fergus Falls	132.39	647.2	61.86	476.5
Breckenridge	29.49	185.3	50.75	63.5
Wadena	399.03	7,812.2	128.68	1,736.3
Glyndon	69.11	753.4	68.64	757.3
Moorhead	5.62	14.6	245.23	816.1
Detroit	279.19	4,349.5	120.40	2,004.5
Dugdale	114.65	2,745.3	101.76	2,368.8
Crookston	209.58	2,218.6	222.30	1,510.3
E. Grand Forks	10.75	33.2	138.78	1,152.0
Red Lake Falls	60.43	249.1	53.68	160.5
S. Euclid	74.35	423.3	60.06	371.5
	3,863.16	52,917.7	2,282.32	27,943.7

Average Haul— $\frac{52917}{3863}$ = 13.7 Mi.

Average Haul— $\frac{27943}{2282}$ = 12.24 Mi.

Average haul on both classes of pipe = $\frac{80861}{6145}$ = 13.16 miles.

Actual Costs of Concrete Arch Culverts constructed in recent years in the States of Minnesota and North Dakota, as shown on records furnished by Division Superintendent, at time culverts were built.

22 culverts in Minnesota running in length from 16 to 170 feet, with five to twelve-foot spans, have a total yardage of 2,258 cubic yards and a total actual cost of $30,151, not including freight or falsework. This is at the rate of $13.85 per cubic yard.

If freight is included at the average haul assumed for materials in Minnesota, and the falsework included at the average cost per lineal foot of pile trestle, the cost per cubic yard of concrete would be $20.47.

25 arch culverts built in North Dakota running in length from 31 to 96 feet, with four to fourteen foot spans, have a total yardage of 2,813 cubic yards, and a total actual cost of $38,112, not including freight or falsework. This is at the rate of $13.54 per cubic yard.

If freight is included at the average haul assumed for materials in Minnesota and falsework assumed at the cost per lineal foot of pile trestle, cost per cubic yard on these culverts would be $19.75.

COMPLAINANT'S EXHIBIT 86. DARLING.—*Cont.*

Actual Costs of various Bridges on the Eastern Section of the Northern Pacific Railway, compiled from detail cost reports of the men in charge of the work.

DESCRIPTION	Total lin. ft. of piling below cut-off.	Total cu. yds of concrete	Total weight of steel in pounds.	Cost per lin. ft. of piling below cut-off		Cost per cubic yd. of concrete including excavation.		Cost per pound of metal in superstructure including deck & painting		REMARKS
				Exclusive of freight	Including freight	Exclusive of freight	Including freight	Exclusive of freight	Including freight	
Item No. 1—10 I-beam bridges and one deck plate girder on the Dakota Div., put in 1900 to 1908. Work done by division forces. Traffic maintained. Average depth wet excavation, 4'.	10,442	1,786	735,535	33c	45c	$12.84	$14.51	3.28c	3.49c	Records on this item includes piling with concrete costs. Costs have been separated by assuming piling at figures shown.
Item No. 2—15 I-beam bridges and two deck plate girders on the Yellowstone Div., put in 1899 to 1907. Conditions same as Item No. 1	No piling	2,205	652,914	.....	.....	$13.39	$15.81	3.73c	4.13c	I-beam spans.
								4.11c	4.59c	Girder spans.
Item No. 3—Mississippi River bridge at Brainerd. 3-140' deck pin spans, 1-60' and 1-85' deck plate girder. Traffic maintained. Average depth wet excavation, 5'. Substructure put in by Construction Dept. Erection contracted 1900.	8,650	1,826	852,649	37.5c	54.3c	$14.37	$16.54	5.29c	5.64c	Costs taken from detailed report of Prof. Constant, engineer in charge of the work.
Item No. 4—Mississippi River bridge at Little Falls. 5-100' deck plate girders. Average depth of wet excavation, 10'. Work done by construction dept. 1899.	2,400	1,184	707,000	34c	52c	$16.81	$19.44	4.17c	4.57c	
Item No. 5—Double tracking. 7 deck plate girder bridges between Wadena and Moorhead. Piers extended and second track superstructure placed. Traffic maintained on old line only. Average depth of wet excavation, 4'. Work done by division forces, 1906.	12,590	1,548	783,500	45c	50c	$11.75	$12.45	3.44c	3.65c	
	Totals			Averaging all items.						
	34,082	8,549	3,731,598	37.6c	50.3c	$13.83	$15.75	4c	4.30c	

Estimated and Actual Costs of Sub and Superstructure of various Bridges constructed on the Northern Pacific System between 1904 and 1909.

These bridges represent a total cost of $3,444,000.

DESCRIPTION	Total lin. ft. of piling below cut-off	Total cu. yds. of concrete	Total weight of steel in tons	Cost per lin. ft. of piling below cut-off		Cost per cu. yard of concrete including excavation		Cost per lb. of metal in superstructure including deck and painting		REMARKS
				Exclusive of freight	Including freight	Exclusive of freight	Including freight	Exclusive of freight	Including freight	
Item No. 1—Garrison to Missoula. 10 double track bridges, 5 truss spans, balance girders. Wet excavation about 14′ below water surface.	No piling	26,921	4,887	.....	.....	$13.00	$15.52	4.14c	5.07c	Work not yet completed & costs have been estimated on basis of work done to date & contract unit prices.
Item No. 2—St. Regis to Paradise. 6 single track bridges, 16 truss spans, balance girders. Wet excavation averages about 12′ below surface of the water. Construction work. Heavy team haul on material except piling, which was obtained on the ground.	28,575	16,711	3,391	60c	62c	$17.35	$21.60	4.35c	5.37c	Substructure complete and costs are the detail charges. Superstructure not quite complete, and costs of false work and erection are partially estimated.
Item No. 3—Bridge No. 7, Butte Line. 1-160′ truss span.	No piling	403	184	.....	.....	$18.00	$19.57	4.12c	5.72c	Actual cost.
Item No. 4—Bridge No. 255, Rocky Mountain Div. 4-180′ truss spans. 12′ water.	No piling	1,760	687	.....	.....	$21.67	$26.80	4.29c	5.82c	Actual cost.
Item No. 5—Bridge No. 300, Idaho Div. 2-90′ plate girders and 4-200′ truss spans. Average depth of wet excavation, 5′	No piling	1,781	935	.....	.....	$27.53	$31.42	4.20c	5.93c	Actual cost.

Item No. 6—Bridge No. 89, Pasco Div. 1-100′ plate girder and 1-150′ truss span. Average depth of wet excavation, 17′	No piling	774	255	.....	.....	$14.57	$18.20	4.00c	5.30c	Actual cost.
Item No. 7—Bridge No. 97, Pasco Div. 1-250′ truss span. Average depth of wet excavation, 10′	No piling	1,528	386	.....	.....	$9.63	$12.21	4.01c	5.28c	Actual cost.
Item No. 8—Bridge No. 104, Pasco Div. 1-60′ plate girder and 2-120′ truss spans. Average depth of wet excavation, 11′	No piling	1,247	312	.....	.....	$11.17	$13.63	4.40c	5.70c	Actual cost.
Item No. 9—Valley City viaduct. Fargo Div. Viaduct 3,700′ long. 8 river piers. Wet excavation 18′, 112 land piers. Little or no wet excavation.	60,120	9,490	6,867	35.0c	46.5c	$11.71	$16.48	3.72c	3.96c	Actual cost. Low price on superstructure due to large tonnage and ease of erection.
Item No. 10—Huson bridge, Cœur d'Alene line. 8-100′ plate girders. Average depth wet excavation, 15′.	5,720	2,350	.....	52.5c	70.8c	$12.22	$15.04	.....	.....	Not completed. Costs are obtained by applying contract prices for the work to the estimated quantities.
Item No. 11—Bridge No. 56, Rocky Mountain Div. 2-60′ plate girders. Average depth wet excavation, 6′.	7,500	300	.....	87.0c	$1.038	$11.58	$13.40	.....	.....	Not completed. Costs are obtained by applying contract prices for the work to the estimated quantities.
Item No. 12—St. Louis Bay draw spans, Duluth. 1-425′ single track draw and 1-479′ double track draw. Average depth of foundations below water, 30′	19,000	6,252	3,172	84.0c	92.0c	$19.70	$22.60	5.67c	5.86c	Costs of the concrete are for the five piers placed to date. High cost due to heavy traffic maintained and expensive operating machin'y for draw.
Total quantities and average unit prices of the above items.....	120,915	69,517	21,076	52.7c	62.0c	$14.97	$18.37	4.28c	4.96c	

COMPLAINANT'S EXHIBIT 87. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY
LINES IN MINNESOTA

Statement of Operating Expenses divided as between Passenger and Freight business year ending June 30th, 1907.

	Freight	Passenger	Total
Conducting Transportation			
Station Agents, Clerks and Laborers	$418,534.08	$82,327.44	$500,861.52
Station Supplies	30,896.38	12,044.06	42,940.44
Station Furniture	2,351.39	1,589.34	3,940.73
Switchmen and Watchmen	379,987.31	64,856.54	444,843.85
Switching	40,338.19	.....	40,338.19
Telegraph Expenses	90,495.81	69,285.43	159,781.24
Prop. Optg. Exps. of Terminals	116,641.93	46,407.55	163,049.48
Operation of Leased Lines	506.35	1,183.81	1,690.16
Freight Conductors	135,146.67	.....	135,146.67
Passenger Conductors	.....	69,603.04	69,603.04
Freight Brakemen	195,413.44	.....	195,413.44
Passenger Brakemen	.....	50,848.53	50,848.53
Passenger Baggagemen	.....	18,006.53	18,006.53
Freight Train Supplies and Expenses	29,700.44	.....	29,700.44
Passgr. Train Supplies and Expenses	.....	5,857.84	5,857.84
Heating and Lighting Cars	2,658.18	27,411.91	30,070.09
Oiling Cars	13,801.53	3,326.75	17,128.28
Cleaning Passenger Cars	.....	23,695.18	23,695.18
Engineers and Firemen	449,846.20	148,641.39	598,487.59
Eng. Dispchrs, wipers and R. H. labrs.	111,002.27	36,028.01	147,030.28
Fuel for Locomotives	941,599.06	279,305.06	1,220,904.12
Oil, Tallow and Waste for locomotives	15,207.71	6,499.56	21,707.27
Other Locomotive supplies	10,463.79	3,369.53	13,833.32
Water Supply	21,021.02	14,785.01	35,806.03
Damage and Loss of Freight	97,977.68	.....	97,977.68
" " Baggage	.....	1,349.92	1,349.92
" to Property	4,907.98	2,090.50	6,998.48
Stock killed or injured	2,874.69	2,974.64	5,849.33
Personal injury	102,794.13	67,766.86	170,560.99
Wrecking	23,029.04	1,647.03	24,676.07
Car Mileage—balance	215,487.49	11,210.32	204,277.17
Hire of equipment	7,058.37	534.68	7,593.05
Superintendence	46,805.29	35,005.95	81,811.24
Other expenses	3,363.15	399.21	3,762.36
Total	$3,509,909.57	$1,065,630.98	$4,575,540.55
Maintenance of Equipment			
Repairs of Passenger Cars	.....	88,014.82	88,014.82
" Freight Cars	558,530.04	.....	558,530.04
" Work Cars	39,540.57	29,439.58	68,989.15
" Locomotives	312,764.94	123,085.74	435,850.68
Other equipment expenses	1,717.14	853.69	2,570.83
Supervision of equipment	18,957.57	14,035.25	32,992.82
Total	$931,519.26	$255,429.08	$1,186,948.34
Mtce. of Road and Structures			
Removal of Snow and Ice	51,450.48	40,891.38	92,341.86
Repairs of roadway and track	336,461.89	250,619.85	587,081.74
" Tunnels	.....	.....	.....
" cribbing and bulkheading	35.61	40.38	75.99
" bridges and culverts	55,401.49	41,386.29	96,787.77
Cattle guards, rd. xings, and trk. signs	19,316.51	12,609.06	32,925.57
Renewals of Rails	40,399.59	30,749.57	71,149.16
" Ties	75,982.25	58,438.70	134,420.95

Red ink figures denote "Credits."

	Freight	Passenger	Total
Mtce. of Road and Structures—*Cont.*			
Renewals of fastenings	$37,717.73	$31,001.81	$68,719.54
" frogs, switches and misc. track material	82,441.26	62,963.89	145,405.15
Maintenance of leased lines	619.90	2,689.32	3,309.22
Repairs of fences	5,901.19	4,371.97	10,273.16
" snow fences and snow sheds	5,546.04	4,163.44	9,709.48
" buildings	80,685.17	52,951.70	133,636.87
" water supply	9,398.35	6,772.98	16,171.33
" docks, wharves, land'gs and inclines	45,179.59	17.07	45,196.66
Repairs of telegraph	6,508.14	5,093.67	11,601.81
" shop tools and machinery	18,642.74	15,621.06	34,263.80
Total	$371,687.93	$621,382.13	$1,493,070.06
General Expenses			
Traffic department expenses	22,557.85	12,269.15	34,827.00
Outside agencies	42,116.06	43,718.38	85,834.44
Advertising	581.34	21,560.68	22,142.02
Salaries and exps. of general officers	23,579.43	17,937.56	41,516.99
Salaries of clerks	44,425.33	24,207.35	68,632.68
General office expenses	6,546.96	4,530.53	11,077.49
Legal expenses	13,526.74	8,735.64	22,262.38
Rents of bldgs., trks., yards and term'ls	16,802.66	54,546.93	71,349.59
Insurance	16,763.80	12,714.38	29,478.18
Stationery & Printing "A"	15,709.63	9,196.48	24,906.11
" " " "B"	464.50	280.34	744.84
" " " "C"	542.83	417.24	960.07
" " " "D"	5,192.97	2,795.92	7,988.89
" " " "E"	4,756.31	3,607.16	8,363.47
New York office	13,521.47	10,598.43	24,119.90
Miscellaneous	5,320.00	3,286.14	8,606.14
Total	$232,407.88	$230,402.31	$462,810.19
Summary			
Conducting transportation	3,509,909.57	1,065,630.98	4,575,540.55
Maintenance of equipment	931,519.26	255,429.08	1,186,948.34
Maintenance of road and structures	871,687.93	621,382.13	1,493,070.06
General expenses	232,407.88	230,402.31	462,810.19
Total operating expenses	$5,545,524.64	$2,172,844.50	$7,718,369.14

St. Paul, Minn.
April 27th, 1909.

COMPLAINANT'S EXHIBIT 88. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY

Operating Expenses in Minnesota, divided as between Freight and Passenger business Fiscal Year ending June 30th, 1906.

	Freight	Passenger	Total
Conducting transportation	$2,619,510.10	$824,523.32	$3,444,033.42
Maintenance of equipment	928,415.91	244,438.67	1,172,854.58
Maintenance of way and structures	709,501.00	502,359.95	1,211,860.95
General expenses	207,894.24	205,800.33	413,694.57
	$4,465,321.25	$1,777,122.27	$6,242,443.52

St. Paul, Minn., May 7, 1909

NOTE: These figures are based on the classification of operating expenses used by the Northern Pacific and not that known as the Interstate Commerce Commission classification.

COMPLAINANT'S EXHIBIT 89. (N. P.)

MINNESOTA TRANSFER RAILWAY COMPANY.

Estimate of Cost of Reproduction.

	Subject	State Engineer's Estimate	Minnesota Transfer Company's Estimate
1.	Land for right of way, yards and terminals	$919,791.06	$3,308,043.25
2.	Grading, clearing and grubbing	438,349.75	519,931.28
3.	Protection work, rip rap, retaining walls		
4.	Tunnels		
5.	Cross ties and switch ties	120,276.94	154,922.52
6.	Ballast	21,764.50	20,940.00
7.	Rails	195,900.91	215,544.04
8.	Track fastenings	33,861.15	45,857.02
9.	Switches, frogs and railroad crossings	31,598.34	28,622.83
10.	Track laying and surfacing	52,060.00	73,415.00
11.	Bridges, trestles and culverts	139,873.51	168,606.49
12.	Track and bridge tools	1,514.75	1,514.75
13.	Fences, cattle guards and signs	4,429.20	7,256.20
14.	Stock yards and appurtenances	113,812.41	218,372.97
15.	Water stations	13,598.94	16,600.98
16.	Coal stations	4,229.98	4,229.98
17.	Station buildings and fixtures	943.80	49,400.49
18.	Miscellaneous buildings	137,810.77	56,609.49
19.	Steam and electric power plants, gas plants		
20.	General repair shops	10,938.03	2,635.80
21.	Shop machinery and tools	10,156.25	10,156.25
22.	Engine houses, turntables and cinder pits	34,195.96	29,723.15
23.	Track scales	9,629.00	10,467.50
24.	Docks and wharves (incl. coal and ore docks)		
25.	Interlocking plants	9,752.00	7,500.00
26.	Signal apparatus	25.00	3,275.00
27.	Telegraph lines and appurtenances		
28.	Telephone lines and appurtenances		
29.	Adaptation and solidification of roadbed	54,687.36	
	Total of items 1 to 29, inclusive	$2,359,289.61	$4,953,624.99
30.	Engineering, superintendence, legal expenses, 4½% State; 10% Railway	106,168.03	495,362.50
	Total of items 1 to 30, inclusive	$2,465,457.64	$5,448,987.49
31.	Locomotives	156,786.00	158,600.00
32.	Passenger equipment		
33.	Freight car equipment	600.00	
34.	Miscellaneous equipment	1,500.00	2,300.00
35.	Marine eqdipment		
	Total of items 1 to 35, inclusive	$2,624,343.64	$5,609,887.49
36.	*Freight on construction material	13,703.07	
	Total of items 1 to 36, inclusive	$2,638,046.71	$5,609,887.49
37.	Contingencies, 5% on total of items 1 to 36	131,902.34	
38.	Stores and supplies in Minnesota		
	Interest during construction, 4% on the cost of reproduction, items 1 to 36, inclusive, except item 29 (1 year)	103,334.37	
	Grand Totals	$2,873,283.42	$5,609,887.49

*For cross ties, rails, track fastenings, switches and frogs.

CHARTS

TOO LARGE FOR FILMING

COMPLAINANT'S EXHIBIT 91. JOHNSON.

Local

ABSTRACT OF LOCAL WAY-BILLS FOR FREIGHT FORWARDED

r Month of April, 1906, Minnesota Transfer Station, F. G. Marshall, Agent.

Way-Bill		Car		Kind of Freight	Weight	Freight	Advances	Prepaid
...e	Number	Initials	Number					
				Royalton				
10	4346	.....	.....	.....	500	$0.95	.....	$0.95
	4349	.....	.....	.....	40	.25	$0.25	.....
	4350	.....	.....	.....	170	.54	.25	.....
	4419	.....	.....	.....	40	.25	.25	.....
11	4849	.....	.....	.....	85	.25	.50	.....
	4867	.....	.....	.....	370	.98	1.45	.....
12	5520	.....	.....	.....	420	2.81	.....	.....
	5693	.....	.....	.....	30	.25	.....	.....
13	5650	.....	.....	.....	150	.38	.63	.....
	5668	.....	.....	.....	100	.25	.28	.....
14	6134	.....	.....	.....	45	.25	.25	.....
	6181	.....	.....	.....	200	.76	1.20	.....
	6152	.....	.....	.....	575	3.35	.64	.65
	6200	.....	.....	.....	320	1.22	1.12	.....
	6621	.....	.....	.....	250	.95	2.50	.....
16	6687	.....	.....	.....	100	.32	.50	.....
	6697	.....	.....	.....	180	.51	.77	.....
	6765	.....	.....	.....	60	.34	.54	.....
	6770	.....	.....	D. H. A.	150	.....	.....	.....
19	7871	.....	.....	.....	50	.38	.....	.....
20	8179	.....	.....	.....	160	.62	1.75	.....
20	8180	.....	.....	.....	1,820	4.92	3.26	.....
	8656	.....	.....	.....	520	1.97	3.64	.....
	8642	.....	.....	.....	85	.32	.51	.....
	8708	.....	.....	.....	470	1.18	2.63	.....
	8865	.....	.....	.....	1,345	3.36	.....	.....
21	9110	.....	.....	.....	2,930	7.33	.....	.....
	9112	.....	.....	.....	160	.60	1.32	.....
					11,325	$35.28	$24.44	$1.60

COPY BOUND CLOSE IN CENTER

COMPLAINANT'S EXHIBIT 91. JOHNSON.—*Cont.*

Local

ABSTRACT OF LOCAL WAY-BILLS FOR FREIGHT FORWARDED

For Month of April, 1908, Minnesota Transfer Station, F. G. Marshall, Ag

Way-Bill		Car		Kind of Freight	Weight	Freight	Advances	Pr pa
Date	Number	Initials	Number					
				Glenwood				
2	737				120	$0.25		$0.
4	1578				100	.70	$0.25	
6	2607				40	.25	.25	
10	4390				110	.39	.53	
	4460				30	.25	.28	
	4497				100	.25	.26	
	4533				170	.41	.44	
	4608				320	1.05	1.10	
11	4941				1,500	3.90	3.45	
	5035				60	.25	.23	
12	5765				150	.46	.83	
	5767				200	.48	.50	
13	5732				100	.25	.25	
	5769				30	.25	.25	
14	6128				380	.04	.08	
	6143				100	.47	1.15	
	6226				200	.71	.85	
	6432				310	1.46	1.86	
16	7002				630	2.96	2.98	
17	7230				60	.28	.30	
	7257				45	.25	.28	
	7270				60	.28	.33	
	7355		38713	Cement	76,000	83.60	.25	
18	7908				80	.32	.98	
	7998				150	1.05	.68	
21	9434				1,050	1.65	2.32	
24	10084				3,510	9.13	21.06	
23	10041				380	2.00	1.78	
					85,965	$114.44	$45.44	$0.

COMPLAINANT'S EXHIBIT 91. JOHNSON.—*Cont.*

Local

ABSTRACT OF LOCAL WAY-BILLS FOR FREIGHT FORWARDED

For Month of April, 1906, Minnesota Transfer Station, F. G. Marshall, Agent.

Way-Bill		Car		Kind of Freight	Weight	Freight	Advances	Prepaid
Date	Number	Initials	Number					
				Philbrook				
7	3020	.....	.....	.....	115	$0.53	$0.69	.....
10	4393	.....	.....	.....	200	.92	.80	.....
23	9664	.....	.....	.....	130	.30	.42	.....
					445	$1.75	$1.71	.....
				Bell Prairie				
					470	1.27	.....	$1.27
2	751	.....	.....	.....	40	.25	.24	.....
9	3623	.....	.....	.....	60	.25	.36	.....
	3887	.....	.....	.....	30	.25	.25	.....
	3900	.....	.....	.....	60	.25	.....	.25
10	4576	.....	.....	.....	30	.25	.25	.....
11	5233	.....	.....	.....	50	.25	.....	.25
18	7801	.....	.....	.....	30	.25	.25	.....
	10051	.....	.....	.....	740	4.54	7.50	.....
27	12185	.....	.....	.....	40	.25	.75	.....
28	12756	.....	.....	.....	60	.25	.25	.....
30	13552	.....	.....	.....				
					1,610	$8.06	$9.85	$1.77

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CHARTS

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LARGE
FOR
FILMING

COMPLAINANT'S EXHIBIT 93. JOHNSON.

NORTHERN PACIFIC RAILWAY COMPANY

Freight Car Equipment, June 30th, 1908.

Class	Number	Capacity Tons	Average Light Weight
Box	2	12	.....
	1,839	20	25,850
	4,087	25	25,850
	818	30	32,840
	4,832	35	31,100
	12,902	40	36,710
	24,480		
Flat	10	12	.....
	13	15	.....
	1,369	20	20,140
	55	25	21,130
	302	30	23,930
	5,792	35	24,710
	901	40	30,810
	8,442		
Coal	15	15	.....
	55	20	24,940
	1,445	25	24,985
	32	30	26,350
	159	35	28,900
	657	40	32,385
	2,414	50	41,330
	4,777		
Stock	396	20	28,500
	1,795	25	33,670
	1	30	32,500
	2,192		
Furniture and Auto	4	20	28,550
	437	25	29,590
	24	30	30,990
	465		
Refrigerator	46	20	35,005
	895	25	46,310
	12	30	44,350
	953		
Ballast and ore	850	40	37,200
Oil	5	20	25,700
	1	25	34,000
	1	30	38,400
	5	35	40,500
	12		

NOTE: Flat cars include Lidgerwoods, in which class there are 290 35-ton and 269 40-ton cars.

Coal cars include 15 15-ton slab cars.

COMPLAINANT'S EXHIBIT 93. JOHNSON.—*Cont.*

Freight Car Mileage, State of Minnesota, Year Ending June 30, 1908.

Class	Loaded	Empty	Total
Box	33,287,076	5,382,147	38,669,223
Refrigerator	2,120,934	593,428	2,714,362
Stock	3,182,855	2,182,024	5,364,879
Flat	2,753,797	1,381,348	4,135,145
Coal	1,633,165	1,785,519	3,418,684
M. of way	219,770	55,229	274,999
Private lines	1,218,117	625,671	1,843,788
Foreign	14,645,099	3,716,218	18,361,317
	59,060,813	15,721,584	74,782,397

Average Miles Per Car Per Day by Classes.

Class	April, 1908			October, 1908		
	Loaded	Empty	Total	Loaded	Empty	Total
Box	19.8	2.4	22.2	23.9	3.8	27.7
Refrigerator	24.7	9.9	34.6	32.4	8.9	41.3
Stock	8.7	5.3	14.0	15.2	9.3	24.5
Flat	6.5	4.0	10.5	9.0	3.7	12.7
Rodger & Hopper	8.4	7.8	16.2	12.0	11.9	23.9
Gondola	6.7	6.0	12.7	12.6	9.5	22.1
M. of way	1.8	0.3	2.1	4.2	3.6	7.8
Caboose	36.5	.....	36.5	51.5	.....	51.5
Foreign	45.1	6.7	51.8	29.8	5.5	35.3
Total	17.7	4.0	21.7	21.8	5.3	27.1